Dr.-Eng.-Prof. Yogesh Malhotra, Quant Finance-AI-ML-Cyber-Crypto-Quantum-Risk Computing Post-Doc
Silicon Valley Venture Capitalists-Trillion $ Wall Street Hedge Funds-Pentagon Joint Chiefs-Boards-CEOs Leader
Top-10 IT-AI PhD, MS-QF, MS-CS, MS-NCS, MS-Acc, MBA, C.Eng., CISSP, CISA, CEH, CPA Education
AWS Machine Learning-Security Specialties Certified, AWS Certified Solutions Architect-Cloud Practitioner
Who's Who in America®, Who's Who in the World®, Who's Who in Finance & Industry®, Who's Who in Science & Engineering®
SSRN Top 0.13% Author: 128 Top-10 R&D Rankings: 18,684 Downloads; Google Scholar: 10,822 Citations.
LinkedIn: https://www.linkedin.com/in/yogeshmalhotra Biography: https://YogeshMalhotra.com/bio.html
Resume: https://YogeshMalhotra.com/Resume.html R&D Labs-Networks: https://YogeshMalhotra.com/
Dr.Yogesh.Malhotra@gmail.com 646-770-7993 m United States of America Citizen-New York State Resident

MIT-Princeton AI-Machine Learning, Cybersecurity, Quantum Computing, Quantitative Finance Faculty-SME
Carnegie Mellon-Kellogg Executive Education Faculty: R&D Impact among AI-Quant Finance Nobel Laureates

R&D Impact Among AI-Quant-Finance Nobel Laureates Herbert Simon, Black-Scholes, Sharpe, Markowitz
Post-Doc R&D AI-ML-Cyber-Crypto-Quantum-Quant Finance: Top-10 IT-AI-Quant Methods-Risk-Controls PhD
MIT Computer Science & AI Lab - Princeton - Carnegie Mellon - Kellogg Executive Education Faculty-SME
Stanford Machine Learning AWS Academy-Machine Learning University Educator: SUNY Lumen Circles Fellow
MIT Computer Science & AI Lab-Sloan School of Management: AI-ML-DL-NLP-RPA-Robotics Faculty-SME
Princeton University Quant Finance & Trading and FinTech Crypto Presentations: AI-ML-Cyber-Quantum SME
Carnegie Mellon University: Digital Transformation & Knowledge Management Executive Education Faculty
Kellogg School of Management: Digital Transformation & Knowledge Management Executive Education Faculty
Kellogg School of Management: Executive Education: PRMIA Quant Finance-Quant Risk Modeling-VaR SME
University of California, Berkeley: Haas School of Business: MS Financial Engineering Executive Education
Syracuse University Associate Professor: Quant Methods: IT-Operations Research-Supply Chain Management
SUNY Lumen Circles Fellow: GenAI & Machine Learning Faculty – STEM Computer Science Assistant Professor
MS-Quant Finance (Fordham), MS-Computer Science, MS-Network & Computer Security, MS-Accounting, MBA:
B.E. Mechanical Engineering with Distinction – Chartered Engineer & Life Member, The Institution of Engineers.

Dr.-Eng.-Prof. Yogesh Malhotra is the Founder of the Silicon Valley-Wall Street-Pentagon-Global Digital CEO-CTO Practices Pioneer New York Venture Capital Firm AWS Quantum Valley™, Global Risk Management Network LLC. With AI-Quant Finance R&D impact ranked among Nobel Laureates Herbert Simon, Black-Scholes, Markowitz, & Sharpe, he has served as MIT-Princeton AI-Quant Finance-Engineering Faculty-SME in Artificial Intelligence-Machine Learning-Deep Learning-Natural Language Processing-RPA and AI-ML-Cyber-Crypto-Quantum-Quantitative Finance-Trading-Risk Computing-Uncertainty Modeling-Systems Engineering. He is profiled in Marquis Who's Who in America, Who's Who in the World, Who's Who in Finance & Industry, Who's Who in Science & Engineering since 1999. Being world's first, foremost, largest global Digital Transformation Networks adopted by worldwide organizations such as Accenture, Goldman Sachs, Google, IBM, Microsoft, and PwC, as Amazon AWS Partner, we lead AI-ML-Cyber-Crypto-Quantum-FinTech-Risk-Cloud-Computing practices with our USAF-AFRL AI-ML-Quant-Cyber-Crypto-Quantum-Risk-Computing Know-Build-Monetize™ Networks guiding Silicon Valley-Wall Street-Pentagon-Global CEOs-CTOs .

Our client roster includes Silicon Valley VCs-CEOs; Trillion-Dollar Wall Street Hedge Funds; "Big-4" Founders-Partners such as Accenture and Silicon Valley McKinsey Partners; Global Telecom, Semiconductor, Hi-Tech Firm CEOs such as British Telecom (UK), Intel Corp., & Philips (Netherlands); Big-Tech firms such as Google, IBM and Microsoft; Wall Street Investment Banks such as JP Morgan; Digital Marketing firms such as Ogilvy; World-Leading Management and Leadership institutions such as Harvard MBA, Harvard University, MIT, Princeton University; United Nations HQ, NSF HQ, and U.S. and world governments, parliaments, cabinets and nations such as Switzerland, Netherlands, South Korea, and, Mexico. Our Global Digital Transformation practices are adopted and recommended by Global Business, IT, Defense and Space industry leaders such as Microsoft founder Bill Gates; PwC Vice-Chairman & CKO; DoD Undersecretary; and CIOs of the U.S. Air Force, Army, and Navy, as well as Top Commanders and Leaders of all US DoD-Allied Forces among other world leaders.

Our interviews and worldwide reviews of our tech ventures as global industry benchmarks including the World's Top-ranked Digital Site, Search Engine, and Social Network, appear in most premiere business and technology press, including Business Week; Fortune; Fast Company, Inc.; The Wall Street Journal; The New York Times; Chief Executive; Computerworld; Information Week; and CIO Magazine.

ACADEMIA-INDUSTRY-GOVERNMENTS R&D-LABS LEADERSHIP

1993-Current	Editor-Referee: 50+ Top AI-Cyber-Crypto-Quantum-Quant Finance-Trading Journals-Proceedings
1993-Current	Global Risk Management Network, LLC, AI-Cyber-Quantum Networks, AWS Partner:
	Chief Scientist, AWS-NYS-USAF-AFRL R&D Labs, AI-Quantum-Cyber-Crypto Networks
	Silicon Valley-Wall Street-Pentagon-US-World-UN-NSF Digital-AI-Quantum Pioneer
	Founder, USAF-AFRL Commercialization Ventures: AIMLExchange™, C4I-Cyber™:
	New York State IDEA Awards Finalist: MVP $30 Million/License USAF-DoD AI-ML.
	Founder, Computerworld Top Digital Site-Search Engine-Social Network BRINT.com.
2022-Current	AWS Accredited Partner: Cloud Computing, AIOps-MLOps-DevSecOps-GenAI-LLMOps
2023-Current	AWS CTO Fellowship-AWS Startup Council-AWS Machine Learning University Educator:
	AWS Academy Educator-SUNY Lumen Circles Fellow: GenAI-AI-Machine Learning
2023-2023	SUNY Poly Courses Faculty: CS 495 Artificial Intelligence, CS 542 Machine Learning
2020-2020	Pentagon US Air Force Chief Scientist, USAF Top Science Role: Invited Interviews
2019-2019	Pentagon USAF C4I-ISR CTO Team Chief Scientist: USAF Secretary-JAIC CTO
	AIMLExchange™: MVP for USAF 'AI-Café' $30 Million/License USAF-DoD AI-ML.
2016-Current	New York State Capitol Faculty-SME: AI-ML-Cyber-Crypto-Quantum-Risk-Computing.
2022-2022	Government of Slovekia Faculty-SME: European Union: AI-Cyber-Defense-Law.
2021-2021	Government of Lithuania Expert Panel: European Union: Ministry of Science-Education.
2018-2018	GIBC Digital, Managing Director, Senior Leadership Team, AI-ML: Bahamas, Nigeria.
	Retained by CEO from Largest Hedge Fund: Head, Billion $ AI-ML-Cyber Data Center.
2017-2018	MIT C-SAIL Executive Education Faculty: AI-Machine Learning-NLP-Robotics-RPA.
2015-2018	Princeton Quant Finance-Trading Faculty-SME: AI-ML-Quantum-Crypto-Risk-Models.
2016-2017	National Association of Insurance Commissioners National Expert Paper & Expert Panel.
2016-2017	State of New York, CISO: IT Administration-Networks Administration, Top Digitized County.
2016-2016	Government of Switzerland Advisor: AI Algorithms: National Banking-Finance Transformation.
2015-2016	SUNY STEM Computer Science-Network Security Faculty, New York State Accreditation.
2014-2014	Hong Kong Institute of CPAs Flagship Publication: Bitcoin-Crypto-SME Interview.
2011-2013	$Trillion Wall Street Banks-Hedge Funds: JP Morgan World HQ, MDs-PMs-Quants.
2009-2015	UC Berkeley-Fordham-Kellogg-SUNY Post-Doc R&D: AI-Cyber-Crypto-Quantum-Risk-Engineering.
	MS-Quant Finance, MS-Computer Science, MS-Network & Computer Security, MS-Accounting.
2006-2006	Government of Netherlands Cabinet Advisor: Dutch Ministry of Education-Science.
2001-2009	Syracuse University, Associate Professor, R&D Impact among AI-Finance Nobel Laureates.
2002-2005	National Science Foundation World HQ: 32 National Expert Panels: SBIR/STTR Grants.
2002-2002	National Science Foundation World HQ Leadership Advisor: Knowledge Management.
2002-2003	United Nations Department of Economic & Social Affairs, UN World HQ Expert Panels.
	United Nations World HQ Global Keynote for OECD Nations, Global Plenary Keynote.
	United Nations World HQ – Invited Research Grant – National Knowledge Economies.
2001-2001	Intel Corporation – Invited Research Grant – Next Generation e-Business Architectures Paper.
2000-2000	Kellogg School of Management Executive Education Faculty Digital Transformation-KM.
1998-2008	Management Consultant: Accenture, BT(UK), Google, IBM, Intel, McKinsey, Philips,…
1998-2001	Assistant Professor of Information Systems, FAU, State University System of Florida.
1999-1999	Government of Mexico Parliament: National E-Government Keynote & Expert Panels.
1998-1998	Carnegie Mellon University Executive Education Faculty: Digital Transformation-KM
1998-1998	Lecturer of Information Systems, College of Business, University of Pittsburgh.
1996-1998	US Federal Government, Invited Council Partner: U.S. Department of Veterans Affairs.
1993-1998	University of Pittsburgh Medical Center-CIO: Digital Transformation-Structural Equation Models PI.
1993-1998	Top-10 PhD IT-AI-KM-Quant Methods-Risks-Controls, University of Pittsburgh (Pitt).
1993-1998	Invited PhD Fellowship-Full Scholarship, Pitt University Professor – IS-IT Strategy Founder.
	Big-3 IT-Banks CIO Global Finance Software Teams Leader-Algo Strat-Forex Arbitrage.
	Global Financial Systems Software Engineering Teams Leader: USA-Hong Kong-India.
	Executive Engineer – Production & Process Engineer, India's Largest Car Manufacturer
	- Japan-India Trans-Continental Technology Transfer & Process Engineering Leader.

Amazon-AWS Accredited-Certified Partner
AWS-NYS-Pentagon-USAF-AFRL R&D Labs
Global Risk Management Network, LLC

AWS Academy Educator-AWS Machine Learning University
GenAI AWS Academy Educator-SUNY Lumen Circles Fellow
AWS Machine Learning University Educator-Stanford M/L

Silicon Valley, Wall Street, Pentagon, Global-US-NYS Academia, Industry, Government-Labs R&D Impact
Globally Recognized Leader: Quant Finance-Trading AI-Machine Learning-Cybersecurity-Quantum Computing

Editorial Boards-Referee: 50+ Top AI-ML-Cyber-Crypto-Quantum-Finance Journals-Conferences, 1993-Current.
Springer Nature Group, Journal of Supercomputing: High Performance Computing: AI-ML-Quantum Networks.
Taylor & Francis, Journal of Experimental & Theoretical Artificial Intelligence: AI-Cyber-Crypto Computing.
AACSB International Impact of Research among Nobel laureates Black-Scholes, Markowitz, Sharpe, 2008.
AI Transformers for Machine Learning: A Deep Learning Dive, CRC Press, Invited Book Foreword, 2022.
Academy of Management, Doctoral Consortium Fellow, University of Pittsburgh PhD Candidate, 1997.
Academy of Management, Best Reviewer Award, Structural Causal Modeling, Conference Best Paper, 1997.
Air Force Research Lab, AFRL Commercialization Academy AI-Cyber-Quantum Ventures, Founder, 2018-2020.
Air Force Research Lab, Built DoD-wide AI-ML Enablement MVP, Clients: USAF Secretary, JAIC CTO, 2019.
American Soc. for Info. Sc. & Tech. Citation Analysis, Top-45 KM Scholars Among AI-Pioneers: Herbert Simon, 2000.
American Society for Quality. *JQP* KM Expert Paper Among: AI-KM Pioneers: Herbert Simon, Ikujiro Nonaka, 1998.
Association for Information Systems Doctoral Consortium Fellow, University of Pittsburgh PhD Candidate, 1997.
AWS X Anthropic GenAI Scale Program, European Union-EMEA AWS-Anthropic GenAI Accelerator, 2024.
AWS CTO Fellowship-AWS Startup Council-AWS Customers Council, Post Generative AI AWS Practices, 2024.
AWS Machine Learning University Educator, AWS-GenAI Advancing Stanford Machine Learning, 2023-2024.
AWS Machine Learning University Faculty Boot Camps, Stanford Machine Learning Specialization, 2024.
AWS Academy Educator-SUNY Poly Faculty, Activated SUNY Polytechnic Institute for AWS Academy, 2023.
AWS Accredited-Certified Partner, 2000-Hrs AWS Partner Cloud-AI-ML-Cyber-Security Practices, 2022-2024.
AWS Certifications, Machine Learning Specialty, Security Specialty, Solutions Architect, 2022-Current.
Business Standard, India: Digital Transformation Strategy Pioneer Professors: Harvard, Wharton, Yale, 2007.
Certified Computing Professional (CCP-CDP), Institute for Certification of Computing Professionals, Since 1993.
Certified Ethical Hacker (CEH), EC-Council, DoD CIO 8140/8570 Baseline Certification, Since 2014.
Certified Ethical Hacker (C|EH) Hall of Fame Finalist, SUNY-Poly Top-Rank Ethical Hacker, EC-Council, 2023.
Certified Information Systems Auditor (CISA), ISACA, DoD CIO 8140/8570 Baseline Certification, Since 2007.
Certified Information Systems Security Professional (CISSP), DoD CIO 8140/8570 Baseline Certification, Since 2005.
CFA Society, *CFA Institute*, Invited Keynote: JP Morgan-Goldman Sachs Cases: Auto-ML, Rochester, NY, 2019.
CNet Networks Corporate Computing Award, Most Influential Research, Syracuse University Faculty, 2002.
Carnegie Mellon: Industry.Net National Awards, Top-3 Web Search Engine Developed as PhD Student, 1996.
Computerworld Internet Forecast Best Web Site Award: First-Foremost-Largest Digital Transformation Network, 1997.
Conference Board CxO Keynote Speaker, US Quality Council, *Malcolm Baldrige Quality Award* CxOs, 1999.
Drexel University, ISWorld Top-3 Knowledge Management Scholars among Tom Davenport & Ikujiro Nonaka, 2000.
Expert Systems with Applications: An International Journal: Top Rank Paper Pioneering Human-Centered AI, 2000.
Government of Mexico Parliamentary Cabinet Ministers, 13 CIOs, 600 Executives, Invited Thought Leader, 1999.
Government of Netherlands Dutch Ministry of Education, Culture and Science, Invited Advisor, 1998.
Government of Switzerland European Cooperation in Science & Technology, Invited Advisor, 2016.
Hong Kong Institute of CPAs, Interview, Bitcoin & Crypto Currencies Global Financial Regulation, 2014.
IBM Certificate of Quantum Excellence: Quantum Uncertainty & Time Space Complexity Pioneer, 2020
Intel Corporation Next Generation e-Business Event-Driven Architectures Invited Expert Paper, 2001.
IntelliBusiness Leaders & Legends of Business Intelligence & Data Warehousing, and, CRM, 1998.
MIT Computer Science & Artificial Intelligence Lab AI & Strategy Management & Leadership Expert, 2017-2018.
National Association of Insurance Commissioners (NAIC) National Expert Panel & Invited Expert Paper 2017.
National Institute of Standards and Technology (NIST): Risk Management Framework Certification, 2020.
National Science Foundation 32 Cyber Computing SBIR/STTR Expert Panels, Syracuse University, 2002-2005.
New York State IDEA Award Top-3 Finalist, US Air Force-Air Force Research Lab Demo Day Presentation, 2019.
New York State Capitol AI-ML-Cyber-Quantum Workforce Development, NYS Governor's Conferences, 2016-2024.
New York State Cybersecurity Conference, Built-Launched World's First Meta-GenAI-Meta Search Engine, 2024
New York State Cybersecurity Conference, Advancing Post-GenAI Education-Skills-Software Development, 2024.
New York State Cybersecurity Conference, Advancing Post-GenAI R&D Beyond GenAI-LLMs-ChatGPT, 2023.
New York State Cybersecurity Conference, Advancing AI-Agility and Cyber-Resilience Cloud Computing, 2022.
New York State Cybersecurity Conference, Advancing Pentagon Joint Chiefs Beyond AI-Quantum Supremacy, 2021.
New York State Cybersecurity Conference, Advancing AI-Machine Learning Augmentation-Cybersecurity, 2019.
New York State Cybersecurity Conference, Advancing AI-Machine Learning beyond Prediction to Anticipation, 2016.
New York State Cybersecurity Engineering & Technology Association Conference, Networks Security Standards, 2015.
Princeton University, AI Model Risk Management beyond Generative Adversarial Networks-Deep Learning, 2018.

Princeton University, AI Model Risk Arbitrage beyond AI Model Risk Management when Models are Wrong, 2016.
Princeton University, AI-Quantum Risk Modeling-Managing Uncertainty in Non-Deterministic Cyber-World, 2015.
Queen's University United States-Canada Fulbright-Visiting Research Chair Invitation & Invited Keynote, 2005-2006.
S. Korea Vision Korea Campaign, Maeil Business, National Keynote-TV-Newspaper Interviews, 1998, 2000.
SUNY-Lumen Circles Fellow, Course Design for Student Success, Artificial Intelligence-Machine Learning, 2023.
SUNY Outstanding Student Award, SUNY Polytechnic Institute, MS Network & Computer Security, Top Rank, 2014.
SUNY Top Ethical Hacker-Pen Tester, SUNY Polytechnic Institute, BS-MS Network & Computer Security, 2014.
SUNY Perfect GPA Award, SUNY Polytechnic Institute, MS Accountancy, GPA 4.0/4.0, Business School, 2010.
SUNY Polytechnic Institute, AWS Academy-Machine Learning University Educator: Future of AI-ML, 2023-2024.
SUNY Polytechnic Institute, AWS Academy Educator-Faculty, Activated SUNY Poly for AWS Academy, 2023.
SUNY Polytechnic Institute, AWS GenAI Faculty Advancing Stanford Machine Learning Specialization, 2023.
SUNY Polytechnic Institute, Computer Science Dept. Invitation: Built-Delivered Future of AI-ML Courses, 2023.
Syracuse University, Multiple Research Grants and Inter-Disciplinary Curriculum Innovation Grants, 2001-2009.
Syracuse University, Chancellor & President Commendation Letter: Exemplar of Serving the Public Good, 2005.
TiE Global Silicon Valley, Silicon Valley Venture Capitalists & Angel Investors BoD-Founders Invited Keynote, 1999.
United Nations HQ, National Knowledge Societies Expert Panel Keynote: Knowledge Assets Measurement, 2003.
United Nations HQ, Human Capital, Intellectual Capital, Social Capital KM Assets Measurement Expert Paper, 2003.
University of Minnesota MIS Research Center Research Study, Top-58 Among AI-Pioneers: Herbert Simon, 2003.
United States Air Force Pentagon Joint Chiefs SME: Beyond ABMS-JADC2: ABMS2-JADAC2-JADCAC2, 2021.
United States Air Force Pentagon USAF Chief Scientist Invited Interviews: Top USAF Science Role, 2020.
United States Air Force Pentagon USAF C4I-ISR CTO Team Chief Scientist: USAF Secretary-JAIC CTO, 2019.
United States Federal Government Inter-Agency Best Practices, Veteran Affairs, Council Partner, 1996-1998.
University of Nevada National Honor Societies, Phi Kappa Phi and Beta Gamma Sigma, MBA 4.0/4.0 GPA 1993.
University of Nevada MBA Fellowship & Full Scholarship, University of Nevada, Las Vegas, NV, 1992-1993.
University of Pittsburgh PhD Fellowship & Full Scholarship, University of Pittsburgh, Pittsburgh, PA, 1993-1998.
WWW Virtual Library on Knowledge Management, Founder, Part of *WWW Virtual Library*, Founder: Tim Berners Lee, 1998.
Ziff Davis Global Standard of Internet Commerce Co-Founder-Editor: Leading US CEOs-CIOs-CTOs, 1999.
Who's Who in America®, *Who's Who in the World®*, *Who's Who in Finance & Industry®*, *Who's Who in Science & Engineering®*, 1999-.

RESEARCH PAPERS AND RESEARCH PRESENTATIONS

Latest Post-PhD R&D after AI-ML-Cyber-Crypto-Quantum-Quant Finance Post-Doc R&D (2009-Current).

SSRN Top 0.13% Author: 128 Top-10 R&D Rankings: 18,684 Downloads; Google Scholar: 10,822 Citations.
MIT C-SAIL & MIT Sloan School of Management, 2017-2018: Human-Centered Meaning Aware AI-ML
Princeton University, 2015-2018: AI-ML-Quantum-Cyber-Crypto-Finance-Risk Management Controls
New York State, 2016-2024: AI-Quantum-Cyber-Crypto-Finance-Risk Engineering-Cloud Computing

1. Malhotra, Yogesh, How to Ensure You Are Not Replaced by Generative AI-Large Language Models: Prepare for Post-GPT Future of Cyber-Resilient AI-ML Software Development and Education & Training Skills Development: Advancing Beyond Generative AI-LLMs to Agile-Resilient-Sustainable Human-Centered Meaning-Aware AI-ML (June 4, 2024). 2024 ***New York State Cybersecurity Conference***, New York State Capitol, Albany, New York, June 4-5, 2024.

2. Malhotra, Yogesh, AI-Machine Learning-Data Management Governance & Controls Cloud Computing Best Practices: Why ChatGPT-LLMs-Generative AI Cannot Be Trusted: Why We Still Need to Advance R&D on Them: Beyond AI Hype: Advancing Beyond Limitations of ChatGPT, Large Language Models, and Generative AI: CNY Quantum Valley Pentagon-USAF-USSF Ventures Spanning Air-Space-Cyberspace-Outer Space (June 6, 2023). 2023 ***New York State Cybersecurity Conference***, 25th Anniversary Cybersecurity Conference, New York State Capitol, Albany, New York, June 6-7, 2023.

3. Malhotra, Yogesh, Beyond Data Protection to Command and Control (C2) Sustainability in a Post-Covid19 World: Execution of U.S. Data Protection Act for U.S. Data Protection Agency, ***Journal of Insurance and Financial Management***. Vol. 7, Issue 4, 2023, pp. 66-87.

4. Malhotra, Yogesh. Augmented AI-Knowledge Driven Intelligent Systems for Adversarial-Dynamic Uncertainty & Complexity: Designing Self Adaptive Complex Systems for Quantum Uncertainty and Time Space Complexity. ***The International Journal of Knowledge Engineering and Management*** (IJKEM), February 8, 2023.

5. Malhotra, Yogesh. Framework of Credit Metrics Methodology for Computing Credit VaR, ***IUP Journal of Financial Risk Management***. Sep 2022, Vol. 19 Issue 3, p 38-49.

6. Malhotra, Yogesh. Beyond 'Bayesian vs. VaR' Dilemma to Empirical Model Risk Management: Managing Risk for Hedge Funds, ***IUP Journal of Financial Risk Management***. Jun 2022, Vol. 19 Issue 2, p 5-51. 47p.

7. Malhotra, Yogesh, How You Can Implement Well-Architected 'Zero Trust' Hybrid-Cloud Computing Beyond 'Lift and Shift': Cloud-Enabled Digital Innovation at Scale with Infrastructure as Code (IaC), DevSecOps and MLops. 2022 ***New York State Cyber Security Conference***, June 8, 2022, Albany, New York.

8. Malhotra, Yogesh, **Transformers for Machine Learning: A Deep Dive**, Invited Foreword, p. xvii-xviii, *Authors*: Uday Kamath, Kenneth Graham, & Wael Emara. Publisher: Chapman & Hall/CRC Press: Machine Learning & Pattern Recognition, May 24, 2022.

9. Malhotra, Yogesh, ***VigiTrust Global Advisory Board Keynote***: How to Manage Geopolitical Crisis-Risks: Protecting Global & National Critical Infrastructures. March 30, 2022: ***VigiTrust Global Advisory Board Keynote***, VigiTrust, Ireland, Keynote Video Presentation: https://youtu.be/jor6lojSJmM.

10. Malhotra, Yogesh, Malhotra, Yogesh, Existing & Emerging Sectors of AI, Cybersecurity, Defense and Law Enforcement. ***ConnectAI 2022 Digital Masterclass***, **Faculty of Economics**, ***University of Ljubljana***, January 27, 2022, Ljubljana, Slovenia: Invited MasterClass: https://www.youtube.com/watch?v=JGB76NJRRBU.

11. The Evolution of Risk Management in a World of Uncertainty: How We Create the Digital Future and You Can Too: Hedge Fund-Private Equity CEOs-CxOs Keynote: Future of Finance, Alternative Assets, and Alternative Risks. Invited Keynote, ***GAIM Ops West Conference***: Hedge Funds, Venture Capital, and Private Equity Executives, December 5-7, 2021, Waldorf Astoria Monarch Beach Resort, Dana Point, CA. https://www.youtube.com/watch?v=m1bLTmRbOIA .

12. Breaking Down Finance Verticals & In Search for New Horizontals: Beyond Model Risk Management & Model Risk Arbitrage to Quantum Uncertainty and Time-Space Complexity in Quantitative Finance and Trading for Hedge Funds Risk Management: Invited Expert Panelist, ***FINTECH INN Conference, European Union FinTech Innovation Conference***, Organized by the Lithuania Agency for Science, Innovation and Technology, Lithuania Ministry of Economy & the Ministry of Science & Education, Vilnius, Lithuania, 21-22 October, 2021. https://www.youtube.com/watch?v=1eu8QJRyDMQ

13. Malhotra, Yogesh, Invited Keynote: How Has Artificial Intelligence Challenged the Boundaries of Humanistic Thinking? ***Global Conference on Artificial Intelligence and Machine Learning: The Future is Now***, Data Bridge Market Research, Oct. 13, 2021, Pune, India: https://www.youtube.com/watch?v=QzqIfJ32ycg.

14. Malhotra, Yogesh, C4I-Cyber Command & Control Supremacy: Why It's More Critical Than AI & Quantum Supremacy & What You Can Do about It? Security in Post-COVID Virtual Era Beyond Data, Models, Algorithms. 2021 ***New York State Cyber Security Conference***, June 8-9, 2021, Empire State Plaza - Albany, NY.

15. Malhotra, Yogesh, Growing Digital Startups to Trillion $ Hedge Funds: Saving You 90% Time & Cost for Sustainable Resilience: Pioneering Global Digital Transformation from Silicon Valley to Wall Street to Pentagon since the beginning of the 'Wild Wild Web', Invited Presentation, ***The Startup Summit, International Trade Council***, Washington D.C., January 19, 2021.

16. Malhotra, Yogesh. Invited Keynote: US Air Force–Space Force: Beyond ABMS-JADC2 to Faster-Better-Cheaper

ABMS2 JADAC2-JADCAC2: AI-Quantum Cyber-Crypto-EMS Network-Centric Computing with Autonomous Robots in Air & Space: Beyond the 'Quantum' Silo to Real-World 'AI-Cyber-Crypto-Quantum', Women PhD-Quantum Engineers Expert Panel Moderated by the US Air Force Modeling & Simulation CTO, ***2020 Space for Women Show: Future Technologies: Will Quantum Technologies Enable the Next Giant Leap of Human Evolution***, Munich, Germany, November 21, 2020: https://www.youtube.com/watch?v=2QBH2RcPURQ .

17. Malhotra, Yogesh, AI-Machine Learning Augmentation and Cybersecurity: Why Smart Minds Using Smart Tools Are Critical for Minimizing Risks, And, What You Can Do About It? Invited Presentation: 2019 ***New York State Cyber Security Conference***, Albany, NY, June 4 - 5, 2019, Empire State Plaza, Albany, NY.

18. Malhotra, Yogesh, Artificial Intelligence Augmentation for Large-Scale Global Systemic and Cyber Risk Management Projects: Model Risk Management for Minimizing the Downside Risks of Artificial Intelligence and Machine Learning (April 29, 2019). ***Journal of Financial Transformation***, Vol. 49, pp. 94-99. April 2019.

19. Malhotra, Yogesh, Why Encryption and Crypto Systems Fail and How to Preempt and Prevent Such Systems Failures: Cryptology beyond Shannon's Information Theory: Preparing for When the 'Enemy Knows the System': Technical Focus on Number Field Sieve Cryptanalysis Algorithms for Most Efficient Prime Factorization on Composites, ***SUNY Polytechnic Institute***, College of Engineering, State University of New York Polytechnic Institute, Revision: January 9, 2019, Utica, NY.

20. Malhotra, Yogesh, ***The CFA Society Keynote***: Advancing Hedge Funds Chief Investment Officer Practices: Model Risk Management with Auto Machine Learning: JP Morgan and Goldman Sachs Practices Case Studies, October 16, 2018, CFA Society Rochester, CFA Institute Member, Rochester, NY.

21. Malhotra, Yogesh, Bahamas e-Government: Single Digital ID for citizens of The Bahamas: Toward a National Cybersecurity System to Ensure Data Privacy and Security. ***Corporate Expert Paper***, ***Managing Director***, GIBC Digital LLC, July 1, 2018, GIBC Digital, LLC, New York.

22. Malhotra, Yogesh, AI, Machine Learning & Deep Learning Risk Management & Controls: Beyond Deep Learning and Generative Adversarial Networks: Model Risk Management in AI, Machine Learning & Deep Learning, **2018 *Armed Forces Communications and Electronics Association (AFCEA) C4I and Cyber Conference***, Erie Canal Chapter, June 19 & 20, 2018, Syracuse, NY.

23. Malhotra, Yogesh, AI, Machine Learning & Deep Learning Risk Management & Controls: Beyond Deep Learning and Generative Adversarial Networks: Model Risk Management in AI, Machine Learning & Deep Learning: ***Princeton Presentations in AI-ML Risk Management & Control Systems***, ***2018 Princeton Fintech & Quant Conference***, April 21, 2018, Princeton University, Princeton, NJ.

24. Malhotra, Yogesh, Bridging Networks, Systems and Controls Frameworks for Cybersecurity Curriculums and Standards Development (March 26, 2018). ***Journal of Operational Risk***, Vol. 13, No. 1, 2018.

25. Malhotra, Yogesh, Cognitive-Neuromorphic Computing for Anticipatory Risk Analytics in Intelligence, Surveillance & Reconnaissance (ISR): Model Risk Management in Artificial Intelligence & Machine Learning, Invited Presentation, ***SRC, Inc.***, January 28, 2018, SRC, Inc., Syracuse, NY.

26. Malhotra, Yogesh, Advancing Cyber Risk Insurance Underwriting Model Risk Management beyond VaR to Pre-Empt and Prevent the Forthcoming Global Cyber Insurance Crisis, Invited Expert Paper, ***National Association of Insurance Commissioners***, December 7, 2017, National Association of Insurance Commissioners (NAIC), Kansas City, Missouri.

27. Malhotra, Yogesh, Quantitative Modeling of Trust and Trust Management Protocols in Next-Generation Social Networks-Based Wireless Mobile AD HOC Networks. ***IUP Journal of Computer Sciences***, Vol. XI, No. 2, April 2017, pp. 7-28.

28. Malhotra, Yogesh, Cyber-Finance: Why Cybersecurity Risk Analytics Must Evolve to Survive 90% of Emerging Cyber Financial Threats, and, What You Can Do About It? Advancing Beyond 'Predictive' to 'Anticipatory' Risk Analytics. Invited Research Presentation, **19th New York State Cyber Security Conference**, Albany, NY, June 8-9, 2016, Empire State Plaza, Albany, NY.

29. Malhotra, Yogesh, Beyond Model Risk Management to Model Risk Arbitrage for FinTech Era: How to Navigate 'Uncertainty'...When 'Models' Are 'Wrong'...And Knowledge'...'Imperfect'! Knight Reconsidered Again: Risk, Uncertainty, & Profit Beyond ZIRP & NIRP. Invited Research Presentation, ***2016 Princeton Quant Trading Conference***, April 16, 2016, Princeton University, Princeton, NJ.

30. Malhotra, Yogesh, If You Build It, They Will Come: Getting U.S. Vocational Colleges to Deliver 'Job Ready' Graduates for 'Real Jobs' of the 'Real World', Invited Presentation***, SUNY-CCC Center for Teaching Innovation and Excellence (*****CTIE*****)***, State University of New York, Corning Community College, January 14, 2016, Corning, NY.

31. Malhotra, Yogesh, Bridging Networks, Systems and Controls Frameworks for Cybersecurity Curricula & Standards Development. Invited Research Paper, ***2015 New York Cyber Security & Engineering Technology Association Conference***, Oct. 22, 2015, Rochester Institute of Technology, Rosica Hall, NTID, Rochester, NY.

32. Malhotra, Yogesh, Toward Integrated Enterprise Risk Management, Model Risk Management & Cyber-Finance Risk Management: Bridging Networks, Systems and Controls Frameworks. Invited Research Presentation, Teaching Workshop, ***2015 NY Cyber Security & Engineering Technology Association Conference***, Oct. 22, 2015, Rochester Institute of Technology, Rosica Hall, NTID, Rochester, New York.

33. Malhotra, Yogesh, Cybersecurity & Cyber-Finance Risk Management: Strategies, Tactics, Operations, &, Intelligence: Enterprise Risk Management to Model Risk Management: Understanding Vulnerabilities, Threats, & Risk Mitigation, Invited Presentation, US National Chief Risk Officers and Chief Legal Officers Meet, ***The Cybersecurity Summit***, September 15, 2015, Altria, Group, Inc., Richmond, VA.

34. Malhotra, Yogesh, Catastrophic Risk Modeling for Risk Strategy Execution: Extreme Risk Models and Methods: Cyber Finance to Cyber Warfare Risk Modeling for Managing Exponential Uncertainty and Complexity in Increasingly Non-Deterministic Cyberspace. Invited Presentation, ***State Street Bank***, August 28, 2015, State Street Bank, Boston, MA.

35. Malhotra, Yogesh, Future of Finance Beyond 'Flash Boys': Risk Modeling for Managing Uncertainty in an Increasingly Non-Deterministic Cyber World: Knight Reconsidered: Risk, Uncertainty, and Profit for the Cyber Era, Invited Research Presentation, ***Princeton Quant Trading Conference***, April 4, 2015, Princeton, NJ.

36. Malhotra, Yogesh, A Report on the Future of Finance, Future of Risk, and Future of Quant: Risk, Uncertainty, and, Profit for the Cyber Era: Model Risk Management of Cyber Insurance Models using Quantitative Finance and Advanced Analytics, January 19, 2015, **SUNY Polytechnic Institute** ***Post-Doctoral Research Thesis***: ***MS Network & Computer Security Thesis Committee*** (Chair: John Marsh, Co-Chairs: Jorge Novillo and Sam Sengupta), SUNY Polytechnic Institute, Utica, NY. Abridged version published as Invited Expert Paper for the National Association of Insurance Commissioners (NAIC).

37. Malhotra, Yogesh, Measuring & Managing Financial Risks with Improved Alternatives Beyond Value-at-Risk (VaR), Research Presentation, ***Professional Risk Managers' International Association*** Curriculum Innovation, PRMIA Complete Course in Risk Management, July 21-25, 2014, Kellogg School of Management, Chicago, IL.

38. Malhotra, Yogesh, Markov Chain Monte Carlo Models, Gibbs Sampling, & Metropolis Algorithm for High-Dimensionality Complex Stochastic Problems, ***SUNY Polytechnic Institute***, College of Engineering, State University of New York Polytechnic Institute, May 8, 2014, Utica, NY.

39. Malhotra, Yogesh, Future of Bitcoin & Statistical Probabilistic Quantitative Methods: Global Financial Regulation, Invited Interview, ***Hong Kong Institute of CPAs***, Official Magazine of the Hong Kong Institute of CPAs, A+, 10(2), January 20, 2014, Published in the February 2014 issue.

40. Malhotra, Yogesh, Bitcoin Protocol: Model of 'Cryptographic Proof' Based Global Crypto-Currency & Electronic Payments System, ***SUNY Polytechnic Institute***, College of Engineering, State University of New York Polytechnic Institute, December 4, 2013, Utica, NY.

41. Malhotra, Yogesh, Advancing Cognitive Analytics Using Quantum Computing for Next Generation Encryption, Invited Presentation, ***SUNY Polytechnic Institute***, College of Engineering, State University of New York Polytechnic Institute, November 18, 2013, Utica, NY.

42. Malhotra, Yogesh, Measuring & Managing Financial Risks with Improved Alternatives Beyond Value-at-Risk (VaR), Risk Management Curriculum Innovation, Research Presentation, ***Fordham University College of Business***, January 26, 2012, Fordham University, New York, NY.

INDUSTRY REPORTS: QUANTITATIVE FINANCE, COMPUTER SCIENCE & NETWORK SECURITY
Post-PhD R&D in course of AI-ML-Cyber-Crypto-Quantum-Quant Finance Post-Doc R&D (2009-2015).

1. A Comparison of CAPM, Constrained Portfolio Optimization, MACD, and Black Litterman Model Portfolio Optimization Strategies.
2. A Probabilistic Mathematical Analysis Model of the Financial Market as a Bayesian Learner.
3. Accounting Measurement and Reporting for Fair Value Accounting and 'Mark-to-Market' Transactions and Events.
4. Adaptive Neuro-Fuzzy Inference System Models for Forecasting Nonlinear Chaotic Time Series Signals.
5. Advanced Financial Auditing of Simulated Corporation Financial Statements Using ACL for Auditing and Compliance.
6. Algorithm Models of Social Networks, Graph Theory, Game Theory & Nash Equilibrium.
7. Analysis of Attack Trees for Mitigating Cybersecurity Attacks on Global Banking & Finance and SCADA Systems.
8. Analysis of FIX and FAST as Financial Securities Trading and Transactions Messaging Network Protocols.
9. Assessing Financial Audit Risk of Big-4 Firm's Proposed Audit Client Acquisition of Oracle Corporation on Sun Acquisition.
10. Back Testing Model Comparisons of Unconditional and Conditional VaR Models for Multiple Financial Time Series.
11. Bank's Credit Derivative Valuation Models of Ratings Transition Matrices, Real and Risk Neutral Default Probabilities.
12. Black-Scholes Model Based Monte Carlo Engine for Derivatives Pricing of Exotic Options in C++.
13. C++ Options & Financial Derivatives Pricing Algorithms and Quantitative Finance Design Patterns.
14. Counterparty Default Risk Models for Semi-Annual and Annual Forward Rate Contracts for Currency Swaps.
15. CreditMetrics Methodology Models and Simulation for Assessing Credit VaR & Economic Capital for a Bond Portfolio.
16. Econometric Analysis and Volatility Modeling Using GARCH and VaR for Stock, Index, and Commodity Time Series.
17. Empirical Calibrations of Hull White Model and Merton Tree Model for Modeling Interest Rates and Bond Prices.
18. Empirical Models of ARCH/GARCH Volatility and Black-Scholes Simulations for Pricing Vanilla and Barrier Options.
19. Empirical Models of Monetary Neutrality, Real Income Growth, Nominal Income Growth, and Inflation.

20. Empirical Models of Purchasing Power Parity and Fisher Equation for Prices, Interest Rates, and Exchange Rates.
21. Empirical Replication of Ho Lee Merton Short Rate and Term Structure Models for Bond Options Pricing.
22. Empirical Replication of JP Morgan Credit Default Swaps (CDS) Models for CDS Mark to Market Valuations.
23. Empirical Replication of Merrill Lynch Gaussian Copula Model for Nth to Default Swap Pricing over Multiple Periods.
24. Empirical Replication of Merton's Model of Default Probabilities with Debt as an Option on Firm Assets.
25. Empirical Replication of Yield Curve Decomposition Models (Based on Cochrane and Piazzesi study, 2008).
26. Empirical Replication of the Gaussian Copula Model for Time to Default for Four Different Firms.
27. Empirical Replication of the Nth to Default Swap Pricing Model for Risk Pooling Strategy for Risky Bonds.
28. Empirical and Simulation Models of Large Portfolio Approximation (LPA) of Credit Default Probabilities.
29. FASB-IASB Convergence of US GAAP and IFRS Asset Fair Value Measurement Standards Based Upon SFAS 157.
30. Financial Accounting Analysis of Statutory Merger of Burlington Northern Santa Fe Corporation in Berkshire Hathaway Inc.
31. Financial Asset Valuation Models in Corporate IPOs, Bankruptcies, Liquidations, Restructurings, Mergers and Acquisitions.
32. Financial Auditing & Assurance Simulation Using ACL for Risk Assessment of Firm's Enterprise Business Processes.
33. Financial Statements Analysis Models of Constant Growth HPR, Steady State Dividend Growth, FCF and Abnormal Earnings.
34. Forensic Accounting & Analysis of Financial Statements of Goldman Sachs, Morgan Stanley, and Berkshire Hathaway.
35. Fundamental Shifts in Efficient Markets Hypothesis, 'New Normal' Outside +/- 3-Sigma, and Market Microstructure.
36. Fundamental Shifts in Financial and Accounting Risk Management Pertaining to Global Finance and Capital Markets.
37. Investment Strategy Portfolio Simulations and Comparative Volatility of Investment Portfolio and Market Porfolio Models.
38. Jump Diffusion Analysis of Option Price Sensitivity to Simulations in Comparison of Black-Scholes and Monte Carlo Models.
39. Machine Learning & Java Neural Networks Algorithms for Non-Linear & Non-Normal Signal Processing of Financial Time Series.
40. Maximum Likelihood Estimation of 2-regime Markov Regime Switching Model for Empirical Analysis of Federal Interest Rates.
41. Maximum Likelihood Estimation of Cox-Ingersoll-Ross Model for Empirical Analysis of Federal Interest Rates.
42. Maximum Likelihood Estimation of GARCH Models for Empirical Analysis of Asset Prices and Returns Time Series.
43. Monte Carlo Simulation and Option Pricing in C++: A Monte Carlo Pricer for Path Dependent Financial Options.
44. Moody's KMV Model for Distance-to-Default, Expected Default Frequency (EDF) and CDS Fair Value Spreads Estimation.
45. Network Intrusion Detection and Prevention & Active Response: Frameworks, Systems, Methods, Tools & Policies (Cisco IDS/IPS).
46. Threats and Vulnerabilities: A First 'Appetizer' to Cybersecurity: 15 Minutes to Minimizing 95% Threats.
47. Transient Directional Volatility Arbitrage & Volatility Neutralizing Hedging Strategies for Portfolio Management.
48. VLANs Implementation, inter-VLAN Routing & VLAN Trunking Protocol using Cisco Network Security Best Practices (Cisco VLANs).

49. VaR Modeling with Monte Carlo and Historical Simulation (HS), Weighted HS, and Filtered HS for Multiple Time Series.
50. Vector Autoregressive Models of Market Microstructure for Analyzing High Frequency Econometric Time Series.
51. Volatility Trading and Volatility Markets Using VIX, VIX Futures, VIX Options, and VIX Term Structure Models.
52. WCDR and Risk Weighted Assets (RWA) Models for Bank Loans Given Probability of Default (PD) and Loss Given Default (LGD).
53. Worst Case Default Rates (WCDR) and VaR Models for Bank Loans Based Upon Gaussian Copula Correlations.

Published Academic R&D Before AI-ML-Cyber-Crypto-Quantum-Quant Finance Post-Doc R&D (1993-2008).
SSRN Top 0.13% Author: 128 Top-10 R&D Rankings: 18,684 Downloads; Google Scholar: 10,822 Citations.

Books/Research Monographs

1. Malhotra, Y. (ed.), Knowledge Management and Virtual Organizations, Idea Group Publishing, Hershey: PA, April 2000, 408 pages.

2. Malhotra, Y. (ed.), Knowledge Management and Business Model Innovation, Idea Group Publishing, Hershey: PA, April 2001, 470 pages.

Journal Articles

3. Malhotra, Y., Galletta, D.F., and, Kirsch, L.J. How Endogenous Motivations Influence User Intentions: Beyond the Dichotomy of Extrinsic and Intrinsic User Motivations, Journal of Management Information Systems, Summer 2008, Vol. 25, No. 1, 267-299.
4. Malhotra, Y. and Galletta, D.F., A Multidimensional Commitment Model of Volitional Systems Adoption and Usage Behavior, Journal of Management Information Systems, Summer 2005, Vol. 22, No. 1; 117-151.
5. Malhotra, Y., Knowledge Management in Inquiring Organizations, Computer Society of India Communications (India), Vol. 30, Issue 4, July 2006, Special Issue on 'Tacit Knowledge' edited by McGill University (Canada).
6. Malhotra, Y., Integrating Knowledge Management Technologies in Organizational Business Processes: Getting Real Time Enterprises to Deliver Real Business Performance, Journal of Knowledge Management, Vol. 9, Issue 1, April 2005, 7-28.
7. Malhotra, Y. and Galletta, D.F., Building Systems that Users Want to Use, Communications of the ACM, 47, 12, December 2004, 89-94.
8. Malhotra, Y., When Best Practices Becomes Worst Practices , Momentum: The Quality Magazine of Australasia [Quality Society of Australasia], NSW, Australia, September 2002, 29-30.
9. Malhotra, Y., Enabling Knowledge Exchanges for E-Business Communities, Information Strategy: The Executive's Journal, 18(3), Spring 2002, 26-31.
10. Malhotra, Y., Expert Systems for Knowledge Management: Crossing the Chasm between Information Processing and Sense Making, Expert Systems with Applications: An International Journal, 20(1), 7-16, 2001.
11. King, W.R., and Malhotra, Y., Developing an Andragogy Model for IS/IT Education, Journal of Informatics Education and Research, 3(1), Spring 2001, 1-14.
12. Malhotra, Y., Knowledge Assets in the Global Economy: Assessment of National Intellectual Capital. Journal of Global Information Management, 8(3), July-Sep, 2000, 5-15.
    Reprinted as:
13. Malhotra, Y., Knowledge Assets in the Global Economy: Assessment of National Intellectual Capital. In F. Tan (Ed.), Advanced Topics in Global Information Management. Hershey, PA: Idea Group Publishing, 2002, pp. 329-345.
14. Malhotra, Y., Knowledge Assets in the Global Economy: Assessment of National Intellectual Capital. In V. Sugumaran (Ed.), Intelligent Support Systems Technology. Hershey, PA: Idea Group Publishing, 2002, pp. 22-42.

15. Malhotra, Y., Knowledge Assets in the Global Economy: Assessment of National Intellectual Capital. In Y. Malhotra (Ed.), Knowledge Management and Business Model Innovation. Hershey, PA: Idea Group Publishing, 2001, p. 232-249.
16. King, W.R., and Malhotra, Y., Developing a Framework for Analyzing IS Sourcing, Information and Management, 37(6), 2000, 323-334.
17. Malhotra, Y., Knowledge Management for E-Business Performance: Advancing Information Strategy to 'Internet Time'. Information Strategy: The Executive's Journal, 16(4), Summer 2000, 5-16.
    Reprinted as:
18. Malhotra, Y., Knowledge Management for E-Business Performance: Advancing Information Strategy to "Internet Time". ICFAI Journal of Systems Management (India), August, 2003.
19. Malhotra, Y., Knowledge Management for E-Business Performance: Advancing Information Strategy to 'Internet Time'. In Y. Malhotra (Ed.), Knowledge Management and Business Model Innovation. Hershey, PA: Idea Group Publishing, 2-15, 2001.
20. Malhotra, Y., Knowledge Management for E-Business Performance: Advancing Information Strategy to 'Internet Time'. Journal of Production Engineering (South Korea), 3(8), 2000, 46-55.
21. Malhotra, Y., Knowledge Management and New Organization Forms: A Framework for Business Model Innovation. Information Resources Management Journal, 13(1), January-March, 2000, 5-14.
    Reprinted as:
22. Malhotra, Y., Knowledge Management and New Organization Forms: A Framework for Business Model Innovation. In M. Khosrowpour (Ed.), Advanced Topics in Information Resources Management, (Advanced Topics in Information Resources Management Series, Vol. 1), Hershey, PA: Idea Group Publishing, 1-18, 2002.
23. Malhotra, Y., Knowledge Management and New Organization Forms: A Framework for Business Model Innovation. In Y. Malhotra (Ed.), Knowledge Management and Virtual Organizations. Hershey, PA: Idea Group Publishing, 2-19, 2000.
24. Malhotra, Y., Bringing the Adopter Back Into the Adoption Process: A Personal Construction Framework of Information Technology Adoption. Journal of High Technology Management Research, 10(1), 1999, 79-104.
25. Malhotra, Y., Knowledge Management for Organizational White Waters: An Ecological Framework. Knowledge Management, 2(6), March, 1999, 18-21.
26. Malhotra, Y., High-Tech Hidebound Cultures Disable Knowledge Management. Knowledge Management, Knowledge Management, 2(5), February, 1999, 7-11.
27. Malhotra, Y., Business Process Redesign: An Overview. IEEE Engineering Management Review, 26(3), Fall, 1998, 27-31.
    Reprinted as:
28. Malhotra, Y., Business Process Redesign: An Overview. ICFAI Journal of Operations Management (India), November, 2002.
29. Malhotra, Y., Knowledge Management for the New World of Business. Asian Strategy & Leadership Institute Review, August, 1998, 36-41.
30. Malhotra, Y., Controlling Copyright Infringements of Intellectual Property. Journal of Systems Management, July, 1994, 45-51.
31. Malhotra, Y., Controlling Copyright Infringements of Intellectual Property: The Case of Computer Software. Journal of Systems Management, June, 1994, 45-50.
32. Malhotra, Y., and Erickson, R.E., Interactive Educational Multimedia: Coping with the Need for Increasing Data Storage. Educational Technology, April, 1994, 34-37.
33. Barton, L., and Malhotra, Y., International Infringement of Software as Intellectual Property, Industrial Management & Data Systems, 1993, 93-100.

Conference Proceedings Papers

34. Malhotra, Y., Desperately Seeking Self-Determination: Key to the New Enterprise Logic of Customer Relationships, Process Automation Track, Customer Relationship Management Mini-track. Proceedings of the Americas Conference on Information Systems, AMCIS 2004, New York, New York.
35. Malhotra, Y. and Galletta, D.F., Role of Commitment and Motivation in Knowledge Management Systems Implementation: Theory, Conceptualization, and Measurement of Antecedents of Success, Proceedings of the Hawaii International Conference on Systems Science, January 2003, January 6-9, 2003, IEEE, Hawaii.
36. Malhotra, Y., Role of Organizational Controls in Knowledge Management: From Constraints to Enablers. Proceedings of the Information Resource Management Association International Conference, Knowledge Management Track, Anchorage, Alaska, May 20-24, 2000.
37. Malhotra, Y., and, Galletta, D.F., Extending the Technology Acceptance Model to Account for Social Influence: Theoretical Bases and Empirical Validation. Proceedings of the Hawaii International Conference on System Sciences (HICSS 32), 6-19, January, 1999, IEEE, Hawaii.
38. Malhotra, Y., Knowledge Management in Inquiring Organizations. Proceedings of the 3rd Americas Conference on Information Systems, Indianapolis, IN, August, 1997.
39. Malhotra, Y., Theoretical & Empirical Redefinition of Information Systems Acceptance & Information Systems Usage. Proceedings of the Academy of Management Meeting, Technology and Innovation Management / Organizational Communication and Information Systems Doctoral Consortium, Boston, MA, August, 1997.
40. Malhotra, Y., Reassessing and Clarifying Information Systems Acceptance and Usage. Proceedings of the 3rd Americas Conference on Information Systems, Doctoral Consortium, Indianapolis, IN, August, 1997.
41. Malhotra, Y., Bringing the Adopter Back Into the Adoption Process: A Personal Construction Framework of Information Technology Adoption. Proceedings of the Academy of Management, Technology and Innovation Management, Boston, MA, August, 1997. (Abstract)
42. Malhotra, Y., and, Kirsch, L.J., Personal Construct Analysis of Self-Control in IS Adoption: Empirical Evidence from Comparative Case Studies of IS Users & IS Champions. Proceedings of the First INFORMS Conference on Information Systems and Technology, 105-114, Washington, DC, May, 1996.
43. Malhotra, Y., IS Productivity And Outsourcing Policy: A Conceptual Framework and Empirical Analysis. Proceedings of the Inaugural Americas Conference on Information Systems, 142-144, August, Pittsburgh, PA, 1995.
44. Malhotra, Y., and Erickson, R.E., MPC: An Evolving Standard in Multimedia Education. Educational Multimedia and Hypermedia Annual, Proceedings of ED-MEDIA 93: Educational Multimedia and Hypermedia, AACE, Charlottesville, VA, 324-331, August, 1993.

Invited Expert Papers & Other Research

45. Malhotra, Y., Board of Advisors Perspective: On Knowledge Management and Actionable Intelligence. Invited Interview as Board of Advisors member, Inside Knowledge (UK), 2009.
46. Malhotra, Y., Competitive Strategy for Highly Risky and Uncertain Business Environments. Business Standard (India), January 2, 2007.
47. Malhotra, Y., On Model Risks & Systemic Risks Inherent in Financial Market Models: Rethinking Management Information and Control Systems for the New World of Uncertainty and Risk. Invited Interview of Influential UK Management Press, 2005. (Knowledge Management Pioneer Interviews)
48. Malhotra, Y., Expertise Location Management Systems: KMS by Another Name? CIO Insight, July 2004.
49. Malhotra, Y., Measuring National Knowledge Assets of a Nation: Knowledge Systems for Development. Expanding Public Space for the Development of the Knowledge Society. Report of the Ad Hoc Expert Group Meeting on Knowledge Systems for Development. Department of Economic and Social Affairs Division for Public Administration and Development Management, United Nations, New York, 2003, 68-126.
50. Malhotra, Y., Why Knowledge Management Systems Fail? Enablers and Constraints of Knowledge Management in Human Enterprises. In Holsapple, C.W. (Ed.), Handbook on Knowledge Management 1: Knowledge Matters, Springer-Verlag, Heidelberg, Germany, 577-599, 2002.

Reprinted as:

51. Malhotra, Y., Why Knowledge Management Systems Fail? Enablers and Constraints of Knowledge Management in Human Enterprises. In Michael E.D. Koenig & T. Kanti Srikantaiah (Eds.), Knowledge Management Lessons Learned: What Works and What Doesn't, Information Today Inc. (American Society for Information Science & Technology Monograph), 87-112, 2004.
52. Malhotra, Y., Why Knowledge Management Systems Fail? Enablers and Constraints of Knowledge Management in Human Enterprises. In Holsapple, C.W. (Ed.), Handbook on Knowledge Management 1: Knowledge Matters, Springer-Verlag, Heidelberg, Germany, 577-599, 2004.
53. Malhotra, Y., Is Knowledge the Ultimate Competitive Advantage? Business Management Europe , September, 2003, Q3/4, pp. 66-68.
54. Malhotra, Y., Is Knowledge the Ultimate Competitive Advantage? Business Management Asia, September, 2003, Q3/4, pp. 67-69.
55. Malhotra, Y., The Knowledge Application Gap in Information Systems Research & Education and their Quest for the Dependent Variable. Information Resources Management Journal, Volume 16, Issue 2, April-June 2003, pp. i-vii.
56. Malhotra, Y., Information Ecology and Knowledge Management: Toward Knowledge Ecology for Hyperturbulent Organizational Environments, Encyclopedia of Life Support Systems (EOLSS), UNESCO/Eolss Publishers, Oxford, UK, 2002.
57. Malhotra, Y., Knowledge Management: The Supply Chain Nerve Center. Inside Supply Management, Institute for Supply Management, July 2002, pp. 34-43.
58. Malhotra, Y., Enabling Next Generation e-Business Architectures: Balancing Integration and Flexibility for Managing Business Transformation. Intel Corporation, Portland, Oregon. Summer 2001.
59. Malhotra, Y., From Information Management to Knowledge Management: Beyond the 'Hi-Tech Hidebound' Systems. In K. Srikantaiah & M.E.D. Koenig (Eds.), Knowledge Management for the Information Professional. Medford, N.J.: Information Today Inc. 37-61, 2000.
60. Malhotra, Y., Intellectual Capitalism: Does KM=IT? Three Myths That Can Derail Your IT & KM Investments. CIO Enterprise, Sep. 15, 1999.
61. Malhotra, Y., Deciphering the Knowledge Management Hype. Journal for Quality & Participation, July-August, 1998.
62. Malhotra, Y., Knowledge Management, Knowledge Organizations & Knowledge Workers: A View from the Front Lines. Maeil Business Newspaper, South Korea, February 19, 1998.
63. Malhotra, Y., Virtual Corporations, Human Issues & Information Technology. Training & Development, American Society for Training and Development (ASTD), Feb. 1, 1997.

Book Chapters

64. Malhotra, Y., Is Knowledge Management Really an Oxymoron? Unraveling the Role of Organizational Controls in Knowledge Management, In D. White (Ed.), Knowledge Mapping and Management, Hershey, PA: Idea Group Publishing, 1-13, 2002.
65. Malhotra, Y., Organizational Controls as Enablers and Constraints in Successful Knowledge Management Systems Implementation. In Y. Malhotra (Ed.), Knowledge Management and Business Model Innovation. Hershey, PA: Idea Group Publishing, 326-336, 2001. (reprint)
66. Malhotra, Y., Role of Organizational Controls in Knowledge Management: Is Knowledge Management Really An 'Oxymoron'. In Y. Malhotra (Ed.), Knowledge Management and Virtual Organizations. Hershey, PA: Idea Group Publishing, 245-257, 2000.

Selected Symposia, Colloquia, & Workshops Presentations

67. Syracuse University School of Information Studies, Research Lecture to the Faculty and PhD Students titled "Knowledge Management: Theoretical Frameworks and Empirical Research", Fall, 2004.

68. Syracuse University Whitman School Faculty Presentation, Research Presentation to the School Administration and Senior Faculty titled “Business Curriculum Innovation with Process Models, Systems Thinking & Organizational Learning: Pedagogical Integration of ERP/SAP in the Inter-Disciplinary Business Curriculum,” July 10, 2003.

69. Syracuse University Management Information & Decision Sciences Colloquium, Research Lecture to Whitman School and Management Information & Decision Sciences Faculty and PhD Students titled “Effect of User Commitment and Motivation on Knowledge Management Systems Use: Theory Development and Longitudinal Field Study Based Empirical Validation”, April 4, 2003.

Selected Invited Keynotes

70. Queen’s University (Canada), Advancing beyond IT Management Failures to Knowledge Management, The Monieson Centre for Knowledge-Based Enterprises, Queen’s School of Business, Queen’s University, Kingston, Ontario, Canada, March 24, 2006.

71. United Nations, “Measuring National Knowledge Assets: Conceptual Framework and Analytical Review,” Invited Keynote Presentation, United Nations Department of Economic and Social Affairs Division for Public Administration and Development Management, New York City, New York, September 4, 2003.

72. Conference Board, “Managing Knowledge for e-Business Performance”, Leading New Economy Workplaces Conference, New York City, New York, May 16-17, 2001.

73. Vision Korea Campaign, “Knowledge Management for the New Digital Economy,” Invited Plenary Keynote Presentation, 4th Knowledge Management Academic Symposium, Korea Knowledge Management Society, Seoul, South Korea, May 13, 2000.

74. KMWorld, “Knowledge Management for High Performance e-Enterprises: Business Strategy and Technology for 'Internet Time'”, KMWorld 2000, Santa Clara, CA, Sep. 12-Sep. 15, 2000.

75. Government of Mexico, “Knowledge Management and Transformation of the Government: Opportunities and Challenges,” Invited Opening Plenary Keynote, Tecnologías de la información para el desarrollo de la Administración Pública, World Trade Center, Mexico City, Mexico, September 28, 1999. The other plenary keynote was given by the global head of G8 Electronic Governments, a direct report of the UK Prime Minister Tony Blair.

76. IndUS Entrepreneurs (TiE), Silicon Valley, “Growing Business Enterprises on the Net: The Way of the Wild Wild Web,” Invited Plenary Keynote, Cerritos, CA, April 21, 1999. The other plenary keynote was by the founder of Silicon Graphics.

77. Conference Board, “Beyond TQM & BPR: Leveraging Knowledge and Information Technology for Business Performance,” Invited Plenary Keynote, Conference Board U.S. Quality Council, Executive Council of Global Center for Performance Excellence, Fort Lauderdale, FL, February 24, 1999.

78. Annual Knowledge Management World Summit, “Toward Knowledge Management that Makes Sense: Making Business Sense of Information &Technology,” Invited Keynote Presentation, BrainTrust '99, San Francisco, CA, January 11-13, 1999. Other keynote presenters included Kenneth T. Derr, Chairman and CEO of Chevron Corporation; Carla O’Dell, President, American Productivity & Quality Center; and Tom Stewart, Board of Directors, Fortune Magazine.

Selected Expert Panels

79. National Science Foundation, National Expert Panel, Web Computing, Knowledge Management and e-Services, Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) Phase II ($500K per proposal), Arlington, Virginia, March 3 - March 16, 2005.

80. National Science Foundation, National Expert Panel, $500K Technology Commercialization Grants for Information Technology and Knowledge Management, Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) Phase II ($500K per proposal), Arlington, Virginia, April 5 - May 4, 2004.

81. United Nations, "Knowledge Systems for Development," Expert Panel, Ad Hoc Group of Experts Meeting, United Nations Department of Economic and Social Affairs Division for Public Administration and Development Management , New York City, New York, September 4-5, 2003.

82. National Science Foundation, National Expert Panel, $500K Technology Commercialization Grant for Information Technology and Knowledge Management, Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) Phase II, Arlington, Virginia, 2003.

83. National Science Foundation, Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) Phase I ($100K) and Phase II ($500K) Proposals, Arlington, Virginia, August 10 - September 25 and October 3 - October 22, 2002.

84. Conference Board, "Leading New Economy Workplaces: New Rules for Getting it Done Simpler, Smarter, Faster," Advisory Board Member, May, 2001. Other advisory board members included John Seely Brown, Chief Scientist, Xerox; Pehong Chen, President, BroadVision; Tom Davenport, Director, Institute for Strategic Change, Accenture; Clement Mok, Chief Creative Officer, Sapient; and, Thornton May, Corporate Futurist, Guardent.

85. Vision Korea Campaign, "Knowledge Management for the New Digital Economy," National TV Interview, Maeil Business TV & Newspaper, Seoul, South Korea, May 2000.

86. Vision Korea Campaign, "Diagnosis of Korean Firms' Present Situation of Knowledge Management and Tasks in the Future," Expert Panel, Korea Knowledge Management Society, Seoul, South Korea, May 13, 2000.

87. Government of Mexico, "Knowledge Management and Transformation of the Government," Expert Panel, Tecnologías de la información para el desarrollo de la Administración Pública, Mexico City, Mexico, Sep.28, 1999. The panel was composed of the key national cabinet ministers from the Mexico Parliament and the 13 CIOs representing the Government of Mexico.

88. Government of Netherlands, "Knowledge Management for Guiding the Reorganization of National Educational, Technological and Institutional Infrastructures," Advisory Panel, Dutch Ministry of Education, Culture and Science, Government of Netherlands, June, 1998.

89. United States Federal Government, Council Partner, Inter-Agency Benchmarking & Best Practices Council, U.S. Federal Government, 1996-1998.

OTHER R&D GRANTS, R&D IMPACT, RESEARCH FELLOWSHIPS, SCHOLARSHIPS

- Syracuse University, Snyder Innovation Management Center Research Grant, 2003, 2004, 2005, 2008
- Syracuse University, Brethen Operations Management Institute Research Grant, 2005

- Syracuse University, Whitman School of Management Research Grant, 2003, 2004, 2005
- Syracuse University, Center for Creation & Management of Digital Ventures R&D Grant, 2003, 2004
- Syracuse University, Martin J. Whitman School of Management Teaching Grant, 2004.
- Syracuse University, United Nations Research Grant for Quantitative Economist Expert Paper, 2003.
- Syracuse University, SAP University Alliance, SAP ERP/CRM Education Grants, 2003.
- Syracuse University, Ewing Marion Kauffman Foundation Entrepreneurship Education Grant, 2003
- ASIS&T, 45 Seminal Contributors in Knowledge Management, Citation Impact Study, 2004
- University of Minnesota, 58 Most Influential Experts in Knowledge Management, 2003
- CNet Networks 'Corporate Computing Award' for Most Influential Paper, 2002
- Intel Corporation Invited Research Grant, 2001
- Drexel University ISWorld Survey, Top-3 Knowledge Management Scholar-Practitioners, 2000
- Academy of Management, OCIS Division, First Best Reviewer Award, 1997
- Academy of Management Doctoral Consortium Fellow, 1997
- Association for Information Systems Doctoral Consortium Fellow, 1997
- Computerworld Annual Forecast Internet Best Web Site Award, 1997
- Industry.Net Online Achievement Awards Best Research Site: Top-3 Search Engines, 1996
- University of Nevada, Las Vegas, Graduate Research Fellowship, Full Scholarship, 1993-1994.
- University of Pittsburgh, Institute for Industrial Competitiveness Grant (with Laurie J. Kirsch), 1996
- University of Pittsburgh, Top-PhD R&D Fellowship with MIS Founder, Full Scholarship, 1993-1998
- US Air Force-Air Force Research Lab Demo Day, New York State IDEA Award Finalist Award, 2019.

PROFESSIONAL EDITOR-REFEREE ACTIVITIES

Selected Invited Editorial Review Panels

American Management Association
Butterworth-Heinemann Business Books
CRC Press
Cambridge University Press
Harvard Business School Publishing
McGraw-Hill Higher Education
Perseus Books
Prentice Hall Professional Reference
Sage Publications
Springer-Verlag

Associate Editor

e-Service Quarterly (Indiana University Press)
Information Resources Management Journal

Selected International Editorial Advisory Boards

Knowledge Management (UK)
The Learning Organisation: An International Journal (UK)
International Journal of Nuclear Knowledge Management (France)
Global Journal of e-Business and Knowledge Management (IIT, Delhi)

Journal Special Issues Editor

Expert Systems with Applications: An International Journal
Information Resources Management Journal
Information Strategy: The Executive's Journal
Journal of Global Information Management

Selected Editorial Review Panels: Journals

Communications of the ACM
Decision Sciences
IBM Systems Journal
IEEE Transactions on Engineering Management
Information Resources Management Journal
International Journal of Financial Studies
International Journal of Human-Computer Studies
International Journal of Information Management
Journal of the American Society for Information Science and Technology
Journal of Association for Information Systems
Journal of Defense Modeling and Simulation
Journal of Developmental Entrepreneurship
Journal of Experimental & Theoretical Artificial Intelligence
Journal of Information Technology and Management
Journal of Management
Journal of Management Information Systems
Journal of Operational Risk
Journal of Organizational Computing and Electronic Commerce
Journal of Strategic Information Systems
Journal of Supercomputing, Springer-Nature Group
MIS Quarterly
North American Actuarial Journal
OMEGA - The International Journal of Management Science
Risk.Net – Quantitative Finance
Risk Management, Springer-Nature Group

Selected Editorial Review Panels: Proceedings

Academy of Management
Association for Information Systems
Hawaii International Conference on System Sciences
Information Resources Management Association
International Conference on Information Systems

National Science Foundation (NSF) SBIR/STTR Expert Panels: Phase I and Phase II: Double Digit Multi-Million Dollar Grant Allocation for U.S. Cyber-Computing Innovations

A Novel Three-Dimensional Ear Biometric Technique
A WebTurbine for Lightweight, Ubiquitous Internet Publishing
BriefMaker - A Requirements Definition Tool
Commercialization of Publicly Available Works
Computer Aided Medical Website Evaluation
Computerized Tool for Baggage Screening
Development of 802.11 Asset Tag
Dynamic Automated Search in the Context of Knowledge Creation
GeoPOP: A Real-Time Location-Based Handheld Application
Highly Accurate Reconstruction Module for Multidisciplinary Computation
Hypertext Data Analysis Mapping: Software for Capturing, Organizing, and Reviewing Data Analyses
Integrated Software and Systems for Large-Scale Nonlinear Optimization
Integrating Usability Engineering into a Method for Multiple Platform User Interface Deployment
Location-based PDA Bird Field Guide
Low-Cost System For Making Online Purchases
Modeler's Workbench: Web Services-based Modeling Platform for the Process Industry
Multi-channel, Multi-device Collaboration System - Driving the Mobile Value Chain
Nanoscale Transport Processes Prediction/Design/Analysis Tool for NEMS Applications

Networked Basin Simulation Environment
Next Generation Binary Decision Diagrams Based Logic Optimization System
Object-Oriented Groundwater Data Repository Technology
Personalized Wireless Network
Polymer Workbench: Web Service Modeling Application Service & Integration for the Polymer Industry
PortSirIsaac--A Web Productivity Portal for Science and Mathematics
QTIPs - 24-Hour Technology Intelligence & Forecasting
Quality-Based Knowledge Discovery for Information Retrieval in Large Communities
Relational Database with Multiple User Interfaces Using Web Services Technology
Technological Advances for On-line Pesticide Reporting Project
Technology Stamps
The Atmospheric Information Remote Project: A Commercial Software for Personal Computing Devices
Unlocking Tacit Knowledge through Content-based Instant Messaging
Web-Based International Trade Knowledge Discovery System

WALL STREET INVESTMENT BANKS & HEDGE FUNDS CHIEF SCIENTIST-FACULTY-SME COMPUTATIONAL FINANCE-QUANT TRADING-RISK & UNCERTAINTY MANAGEMENT

JP Morgan Private Bank, Goldman Sachs Alumnus' Asset Manager & Venture Capital
Econometric Modeling, Quantitative Finance, Quantitative Risk Modeling

Quantitative Finance, Quantitative Analytics, Econometric Modeling, Data Science, Market Risk, Credit Risk, Liquidity Risk, Financial Modeling, Risk Management, Stress Testing, Portfolio Optimization, Derivatives, SAS, SQL, MATLAB, C++, Microsoft Excel, VBA, R, Python, Bloomberg, Financial Risk, Model Risk, Portfolio Management, Hedge Funds, Financial Econometrics, Algorithms, Machine Learning, Predictive Analytics, Statistical Modeling, Data Modeling, Software Engineering, Statistics, Interest Rate Derivatives, Fixed Income, Equities, Trading Strategies, MS Access, Stochastic Modeling, Market Microstructure, Investment Management, Asset Liability Management, Data Mining, Structural Equation Modeling, Quantitative Models, Operations Research, Computer Science, Financial Accounting, Financial Statement Auditing, Optimization.

Led & Advised: Top Wall Street Hedge Funds with $1 Trillion AUM: Global and National Heads of Research & Analytics, Managing Directors, Portfolio Managers, Wall Street Investment Banks Quants-Risk Modelers Teams

Computational Quantitative Finance & Risk Modeling, Advanced Financial Econometrics
Economic Capital, Capital Adequacy, Basel/US Federal Reserve/OCC Frameworks & Regulations, Portfolio Risk, Liquidity Risk, Credit Risk, Market Risk, Econometric Analysis, Market Microstructure, Interest Rate Derivatives, Stochastic Volatility, Fixed Income, Equity, Derivatives (Options, Futures, Forwards, Swaps, Swaptions)
JP Morgan Bank Portfolio Construction & Optimization Liquidity Assessment Framework
Guidance to JP Morgan Managing Directors/Executive Directors/Portfolio Managers
Presentations to JP Morgan MDs/EDs, JP Morgan Global World Headquarters, New York City.

JP Morgan Portfolio Liquidity Assessment Framework Development Leader
Portfolio Assets Modeled: 17 Asset Classes:

Hedge Funds (HF), Alternative Investments, Equities, Commodities, Fixed Income, Bonds, Currencies:

Developed Large Equity
Developed Small Equity
Emerging Equity
Unlisted Equity
Various Commodities
Government Bonds
Investment Grade Bonds
Inflation-Linked Bonds
High Yield Corporate Bonds
Emerging Market Hard Currency Bonds
Emerging Market Local Currency Bonds
Major Currencies
Statistical Arbitrage Hedge Fund
Equity Hedge Hedge Fund
Merger Arbitrage Hedge Fund
Macro Hedge Fund
Relative Value Hedge Fund

Asset Pricing, Risk Management, Stress Testing, Liquidity Risk, Market Risk, Credit Risk, ALM Risk, Portfolio Risk, Investment Risk, Non-Normality, Non-Linearity.

Led quantitative portfolio liquidity modeling for multiple financial asset classes.
Led literature review of all liquidity risk models, methods, and measures.
Led project management & scheduling and delivering high quality results on time.
Led interpretations of all outcomes & findings to ED team of Quants, CIO, MDs, PMs..
Assets: alternatives, HF, equities, commodities, fixed income, bonds, currencies.
Analyzed market risk, credit risk, ALM risk, portfolio risk, investment risk.
Led modeling and stress-testing for all asset classes and composite portfolio.
Led validation of all liquidity and liquidity risk models and measures.
Led verification of model performance, limiting behaviors, responses to stress.
Led modeling of pricing & risk measurement with specific focus on liquidity.
Led evaluation of third-party models, data, software for diverse asset classes.
Led inventorying of model assumptions and assessment of model risks for all assets.
Modeled historical simulation, parametric & modified VaR, expected shortfall.
Modeled and analyzed multi-asset volatility, variances & correlations, GARCH, MLE.
Modeled VaR, QMLE, non-normality, Cornish-Fisher, EVT stochastic models for assets.
Modeled and analyzed liquidity risk models for all assets and portfolio optimization.
Identified & defined benchmark indices & data sources for all asset classes.
Assessed soundness of liquidity & liquidity risk models for assets & portfolio.
Axioms of Coherency and Convexity of Risk Measures
Exponential and Power Utility Functions for Spectral Risk Measures
Why Gaussian Risk Measures Fail and Where Regulation is Headed Next
Liquidity Measure for Illiquid Assets Solves Material Error in Liquidity Measures
Measuring Liquidity As Shadow Cost For Hedge Fund Indexes
Structuring and Pricing of Liquidity Options Hedge Funds for Price Discovery
Devising and Testing Liquidity Measures for Spreads of CDS Contracts
Liquifiability Index as What You May See in Basel Next
Modeling Measuring and Testing Liquidity Risk Across All Asset Classes

Goldman Sachs Alumnus' $400 Billion Asset Management Firm, Midtown Manhattan, New York
Hedge Fund Large Scale Data High Frequency Econometric Modeling Project Leadership

High Frequency Econometric Modeling of Market Microstructure Liquidity & Price Impact
Hedge Fund Performance Analysis of 400 Trading Strategies for Alpha and Risk

SAS High Frequency Econometric Modeling of **Market Microstructure of Liquidity**
High Frequency Econometrics Models of Trade Price Impact & Market Microstructure.
Researched Co-Integrated Time Series for Ultra-High Frequency Tick-and-Quote (TAQ) Data.
Replicated /Analyzed Large Scale Data HF Econometrics Models of Market Microstructure.
Taught VARMAX Models of Co-Integrated Time Series for High Frequency Econometrics.

Analysis of 400 SSA Quarterly Scan Trading Strategies for Alpha and Hedging
Hedge Fund Performance Analysis Quantitative Finance & Quantitative Risk Modeling Research
Analyzed 400 State Street Associates Quarterly Scan Alpha Trading Strategies.
Critical Review of State Street Associates Quarterly Scan Trading Strategies.
Analysis: Why Existing `Alpha´ Research Is Insufficient for Profitable Hedge Fund Asset Management.

Sample of Quantitative Risk Modeling, Quantitative Finance & Econometric Modeling Research

SSA Quarterly Scan Finance and Economics Studies Reviewed Hedge Funds Alpha and Risk Modeling.

EFA Foreign Exchange Risk Premia and Macroeconomic Announcements: Evidence from Overnight Currency Options - Grad
MWFA The dynamic relation between CDS markets and the VIX index - Figuerola-Ferretti,

Paraskevopoulos
EFA A Different Way of Exploring Value versus Growth - Branch, Qiu
EFA Value and Momentum in Frontier Emerging Markets - Swinkels, Pang, Groot
JAM Feasible momentum strategies in the US stock market - Ammann, Moellenbeck, Schmid
MWFA Gradual Diffusion of Upstream and Downstream Earnings News - Implications for Stock Prices - Chen
MWFA Creative Destruction and Asset Prices - Jank, Gramming
MWFA Is Contrarian Investment Performance Conditional Upon Relative Price Levels? - Wu, Li, Hamill
MWFA If it's good for the firm, it's good for me: Insider trading and repurchases motivated by undervaluation - Jalegaonkar
MWFA Does Investor Relations Add Value - Agarwal, Bellotti, Taffler
JFE Spot and forward volatility in foreign exchange - Della Corte, Sarno, Tsiakas
JBF An investigation of customer order flow in the foreign exchange market- Cerrato, Sarantis, Saunders
JPM Active Currency Investing and Performance Benchmarks - Melvin, Shand
NFA Volatility Term Structure and Option Returns - Vasquez
FMAEu Persistence of derivative returns through the financial crisis - Onn and Sinnakkannu
FMAEu Black Swans, Beta, Risk, and Return - Estrada and Vargaas
EFMA Can exchange traded funds be used to exploit country and industry momentum - Andreu, Swinkels,
FMAEu Crash worries and stock returns - Baltussen
EFMA Another Look at Trading Costs And Short-Term Reversal Profits - De, Huij, Zhou
EFMA Does the market know better? The case of strategic vs. non-strategic bankruptcies - Coelho, John, and Taffler
NFA Explaining Stock Returns with Intraday Jumps - Amaya and Vasquez
NFA Geographic Dispersion and Stock Returns - Garcia and Norli
NFA Prior Earnings, Dividend-Reducing Announcement Returns and Future Earnings Performance - Asern
NFA The Relative Leverage Premium - Ippolito, Steri, and Tebaldi
WFA A New Anomaly: The Cross-Sectional Profitability of Technical Anlaysis - Han, Yang, Zhou
WFA As Told by The Supplier: Trade Credit and The Cross Section of Stock Returns
EFMA The effect of the US holidays on the European markets, When the cat's away - Muga, Casado, Santamaria
WFA Search Frictions and the Liquidity of Large Blocks of Shares - Schroth and Albuquerque
NFA Economic Risk Premia in the Fixed Income Markets - Balduzzi and Moneta
WFA Why Does Treasury Issue TIPS? The TIPS - Treasury Bond Puzzle - Lustig, Longstaff, Fleckenstein
FMAEu Know When to Hold 'Em, and Know When to Fold 'Em: The Success of Frequent Hedge Fund Activists - Boyson and Mooradian
EFA Volatility Term Structure and the Cross-Section of Option Returns
EuFA Do Firms Buy Their Stock at Bargain Prices? Evidence from Actual Stock Repurchase Disclosures
EuFA Do Mutual Fund Managers Trade on Stock Intrinsic Values?
EuFA As Told by The Supplier: Trade Credit and The Cross Section of Stock Returns
FMA How does Portfolio Disclosure affect Institutional Trading? Evidence from their Daily Trades - Wang
FMA Buy High and Sell Low - Wang
FMA Capital Utilization and Stock Returns - Balvers, Gu, and Huang
FMA Investor Sentiment, Risk Factor and Asset Pricing Anomalies - Ho and Hung
FMA IQCAPM: Asset Pricing with Information Quality Risk - Jacoby, Lee, Paseka & Wang
FMA Post Earnings Announcement Drift and Value-Glamour Anomaly - Yan and Zhao
JAM Profitable Mean Reversion after Large Price Drops - Dunis, Laws, and Rudy
JFQA New Evidence on the Relation between the Enterprise Multiple and Average Stock Returns - Loughran and Wellman
FMA Variance Risk Premium and Cross-Section of Stock Returns: Han and Zhou
FMA Contrarian and Momentum Strategies: The Impact of the Business Cycle - Filbeck, Li, and Zhao
FMA Crash Worries and Stock Returns - Baltussen
FMA Acquisitions of Foreign Divested Assets - Ngo and Jory

EuFA Streaks in Earnings Surprises and the Cross-Section of Stock Returns - Loh and Warachka
EuFA Bond Variance Risk Premia - Mueller, Vedolin, and Yen
FMA Short and Long Slopes of Yield Curves Have Different Economic and Asset Pricing Implications - Lee
AFA Cross-Section of Option Returns and Idiosyncratic Stock Volatility – Cao and Han
AFA On the Timing and Pricing of Dividends - Van Binsbergen, Brandt and Koijen
JPM Global Tactical Sector Allocation: A Quantitative Approach: Doeswijk, Van Vliet
JFE Is Momentum Really Momentum?: Novy-Marx
AFA How does Portfolio Disclosure affect Institutional Trading? Evidence from their Daily Trades - Wang
AFA Information Content When Mutual Funds Deviate from Benchmarks: Jiang, Verbeek, and Wang
AFA The Baltic Dry Index as a Predictor of Global Stock Returns, Commodity Returns, and Global Economic Activity: Bakshi, Panayotov, and Skoulakis
NBER The Share of Systematic Variation in Bilateral Exchange Rates: Verdelhan
AEA Can Oil Prices Forecast Exchange Rates?: Ferraro, Domenico, Rossi, Barbara and Rogoff
AFA Carry Strategies in Global Asset Classes: Koijen, Tobias Moskowitz, Lasse H. Pedersen, Evert
JBF International Diversification: An Extreme Value Approach: Cholette et al.
JoF A Simple Way to Estimate Bid-Ask Spreads from Daily High and Low Prices: Corwin and Schultz
AEA Are Mutual Funds Sitting Ducks?: Shive, Sophie and Yun, Hayong
RFS The Road Less Traveled: Strategy Distinctiveness and Hedge Fund Performance: Sun et al.
AFA Uncovering Hedge Fund Skill from the Portfolio Holdings They Hide, Agarwal et al.

Credit Risk Models

Credit Default Swaps, Default Probabilities, Gaussian Copula, Nth to Default Swaps, Simulations, Large Portfolio Approximation, CreditMetrics, KMV, VaR, Expected Default Frequency (EDF), Counterparty Risk, Credit Valuation Adjustment (CVA), Stress Testing, Basel II/III, Worst Case Default Rate (WCDR), Exposure at Default (EAD), Loss Given Default (LGD), Probability of Default (PD), Risk Weighted Assets (RWA)

Market Risk Models

Volatility Modeling, GARCH/Extensions, MLE, Variance/Correlation Models, Portfolio VaR, QMLE, Non-Normality, Cornish-Fisher, Extreme Value Theory (EVT), Expected Shortfall (ES), Coherent/Spectral Risk Measures, Weighted/Filtered/Historical Simulation, Monte Carlo, Backtesting VaRs/ES, Stress Testing, Basel II/III

Interest Rate Derivatives Models

Simulations, Analytic Expectation, Tree Models, Calibrations; Continuous Time, CIR, Vasicek, Merton, Hull-White, BDT, & HJM Models; Bond Options, Treasuries, Coupon Bonds, Caplets, Floorlets, Swap Contracts, Bond Risk Premia, Yield Curve, Markov Regime Switching Models

Equity Portfolio Models

Derivatives, Mean-Variance Portfolios, CAPM, Passive/Active Portfolio Performance, Multi-Factor Models, Cross-Sectional Returns, Asset Allocation, Risky/Risk-Free Portfolios, Diversification, Risk Pooling, CAPM, Anomalies, Dividend Discount/Growth Models

Fixed Income Portfolio Models

Bond Valuations, Derivatives, Yields, Term Structure, Credit Spread, Credit Risky Bonds, Interest Rate Risk, Portfolio Performance, Passive/Active/Liability Funding, Hedging, Swaps, Forwards, Futures, ABS, MBS.

Computational Finance-Cyber Finance: SAS, MATLAB, C++, C++11, Machine Learning, Signal Processing

C++ Design Patterns, Monte Carlo Models, Black-Scholes Model, C++11 Multithreading and Concurrency, SAS

Applied Data Science, SAS Advanced Data Mining Models, Uncertainty Modeling, Machine Learning, Computer Algorithms, Mathematical Computation, Computational Cryptography, Artificial Intelligence & Modeling, Machine Learning, Soft Computing, Multivalent Logic, Fuzzy Systems, Computational Complexity, Computational Economics, Graph Theory, Social Networks Analysis, Game Theory, Bayesian Models, Automata, Computability, Formal Languages

Algorithms & Mathematical Models of Computing Machines

Complexity theory, Computability theory, Automata theory, Regular Languages, Finite Automata, Nondeterminism, Regular Expressions, Nonregular Languages, Pumping Lemma, Context-Free Languages, Context-Free Grammars, Pushdown Automata, Non-Context-Free Languages, Church-Turing Thesis, Turing Machines, Variants of Turing Machines, Hilbert's Problems, Decidable Languages, Undecidability, Undecidable Problems from Language Theory, Computation Histories, Mapping Reducibility, Time Complexity, Measuring Complexity, Class P, Class NP, P versus NP, Cook-Levin Theorem, NP-complete Problems.

Algorithms & Computational Complexity

Big-O and Small-O, Primality Testing, Euclid's Algorithm, Fermat's Little Theorem, Recurrence Relations, Divide-and-Conquer Algorithms, Fast Fourier Transform, Undirected Graphs, Depth-First Search, Directed Graphs, Directed Acyclic Graphs (DAGs), Breadth-First Search, Dijkstra's Algorithm, Shortest Path Algorithms, Bellman-Ford Algorithm, Greedy Algorithms, Minimum Spanning Trees, Kruskal's Algorithm, Prim's Algorithm, Huffman Encoding, Horn Formulas, Dynamic Programming, Topological Ordering, Knapsack Problem, Floyd-Warshall Algorithm, Traveling Salesman Problem, Linear Programming, Duality, Complexity Reductions, Network Flows, Max-Flow Minimum Cut Algorithm, Bipartite Matching, Simplex Algorithm, NP-Completeness, Satisfiability (SAT), Integer Linear Programming, Vertex Cover, Clique, NP-Complete Reductions.

Algorithms, Cyber Networks & Computational Economics

Graph Theory, Social Networks Analysis, Network Strength, Network Structure, Graph Partitioning, Homophily, Structural Balance, Game Theory, Dominant Strategies, Nash Equilibria, Mixed Strategies, Evolutionarily Stable Strategies, Braess's Paradox, Auctions and Pricing, Auction Formats, Bidding Strategies, Matching Markets, Bipartite Graphs, Market-Clearing Prices, Equilibria in Trading Networks, Power in Social Networks, Nash Bargaining Solution, Modeling Network Exchange, Information Networks, WWW Link Analysis, PageRank, Spectral Analysis, VCG Principle, VCG Prices, Bayes' Rule, Information Cascades, Network Effects, Negative Externalities, Power Laws, Rich-Get-Richer Models, Long Tail, Information Cascades, Decentralized Search, Epidemic Models, Wisdom of Crowds Models, Asymmetric Information, Reputation Systems, Voting Systems.

Algorithms, Cryptography, Cryptology & Cyber Security

Shannon's Information Theory, Modular Arithmetic, Number Theory, Symmetric Cryptography, Data Security, Stream Ciphers, Linear Feedback Shift Registers (LFSR), Data Encryption Standard (DES), Triple DES (3 DES), Galois Fields, Advanced Encryption Standard (AES), Block Ciphers (ECB, CBC, OFB, CFB, CTR, GCM), Public-Key Cryptography, RSA Cryptosystem, Public-Key Cryptosystems, Discrete Logarithm Problem, Diffie-Hellman Key Exchange, Elgamal Encryption Scheme, Elliptic Curve Cryptosystems, Digital Signatures, RSA Signature Scheme, Elgamal Signature Scheme, Digital Signature Algorithm, Elliptic Curve Digital Signature Algorithm, Hash Functions, Hash Algorithms, Message Authentication Codes (MACs, HMAC, CBC-MAC, GMAC), Key Establishment (Symmetric and Asymmetric), Key Derivation.

C++ Mathematical Finance, Risk, Design Patterns & Derivatives Pricing Models

C++ Software Engineering Design Patterns: C++ Algorithms, Creational patterns, Virtual Copy Constructor, Factory Pattern, Singleton Pattern, Structural patterns, Adapter Pattern, Bridge Pattern, Decorator Pattern, Behavioral patterns, Strategy Pattern, Template Pattern, Iterator; *C++ Computational Finance Options and Derivatives Pricing Applications*: Monte Carlo Model, Black Scholes Model, Monte Carlo Call Option Pricer, Encapsulation, Open Closed Principle, Inheritance, Virtual Functions, Virtual Constructor, Bridge Pattern, Statistics

Gatherer, Wrappers, Convergence Table, Decorator Pattern, Random Number Generators, Linear Congruential Generator, Anti-Thetic Sampling, Exotics Engine, Template Pattern, Black Scholes Path Generation Engine, Asian Option, Tree Class, Pricing On Trees, Solvers, Templates, Implied Volatilities, Function Objects, Bisections, Newton Raphson Method, Smart Pointers, Exceptions.

C++11 Multithreading & Concurrency Standard Extensions and Operating Systems

Threads, Lambda Expressions, Thread Execution Modes, Thread Termination Modes, References in Multi-threading Mode, Exception Management for Threads, Resource Acquisition is Initialization (RAII), Thread Execution and Document Management, Parameter Passing in Threads, Object References in Threads, std::thread Standard Thread Library, C++ smart pointers, Inter-Thread Execution Transfer, Hardware Concurrency for Multi-Threading, Thread IDs, Preventing Broken Invariants, Mutexes and Race Conditions, Runtime Functions and Arguments Passing, Stack-Related Interface Issues and Race Conditions, std::lock Standard Thread Library, Preventing Deadlocks in Multi-threading, std::lock_guard Standard Thread Library, std::unique Standard Thread Library, std::defer Standard Thread Library, Mutex Ownership Transfers, Efficient Locking of Mutexes, compare vs. swap, Data Initialization and Race Conditions, Initialization of Static Variables, Single Writer & Multiple Readers.

Machine Learning, Signal Processing, Uncertainty & Risk Modeling, Econometric Modeling

Multivalent Logic, Uncertainty Modeling, Interval Arithmetic, Multi-Level Interval Numbers, Fuzzy Numbers, Fuzzy Arithmetic, Fuzzy Sets, Fuzzy Operations, Fuzzy Relations, Many-Valued Logic, ANFIS (Adaptive Neuro-Fuzzy Inference System) Models, MATLAB, Java Neural Network Models, C, Approximate Reasoning, Algorithms, Data Mining, Machine Learning, Supervised Learning, Unsupervised Learning, Semi-supervised Learning, Dimensionality Reduction, Pattern Recognition, Classification, Clustering, Overfitting, Underfitting, K-Means Clustering Algorithms, K-Nearest-Neighbor Algorithms, Feature Selection, Nearest Neighbor Classifiers, Naive Bayes Classifier, Bayesian Classifiers, Differential Misclassification, Bootstrap Aggregating (Bagging), Boosting, Single Link Clustering, Complete Link Clustering, Novelty Detection, Receiver Operating Characteristic (ROC), Decision Trees, Genetic Algorithms, Neural Networks, Wrappers vs. Filters, ID3 Algorithms, C4.5 Algorithms, C5.0 Algorithms, Entropy Estimation.

SAS Applied Data Science & Advanced Data Mining Models

SAS Programming Advanced Techniques and Efficiencies: User-Defined Functions, Controlling I/O Processing and Memory, Accessing Observations, Using DATA Step Arrays, Using DATA Step Hash and Hiter Objects, Combining Data Horizontally; *SAS SQL*: SQL Queries, Displaying Query Results, SQL Joins, Subqueries, Set Operators, Creating Tables and Views, Advanced PROC SQL Features; *SAS Macros*: Macro Variables, Macro Definitions, DATA Step and SQL Interfaces, Macro Programs; *SAS Data Manipulation Techniques*: Controlling Input and Output, Summarizing Data, Reading Raw Data Files, Data Transformations, Debugging Techniques, Processing Data Iteratively, Restructuring a Data Set, Combining SAS Data Sets, Creating and Maintaining Permanent Formats; *SAS Programming*: SAS Programs, Accessing Data, Producing Detail Reports, Formatting Data Values, Reading SAS Data Sets, Reading Spreadsheet and Database Data, Reading Raw Data Files, Manipulating Data, Combining SAS Data Sets, Creating Summary Reports.

AWS ACCREDITED-CERTIFIED PARTNER: NEW YORK STATE CLOUD COMPUTING EXPERT

New York State: "Join Dr. Yogi Malhotra to get up to speed on Cloud Technology."

AWS and Anthropic GenAI Scale Program, Generative AI-Large Language Models Venture Accelerator

The program is designed for CTOs, Heads of Engineering, Data Science, Machine Learning, Developers but also includes sessions tailored for generative AI go-to-market strategies for commercial executives. It focuses on rapidly scaling product development by utilizing Claude models on Bedrock in a first-of-its-kind intensive ML product accelerator. The program enables engineering teams to leverage Bedrock's enterprise-grade security and features, along with Claude's Anthropic models at scale. Participants will master prompt engineering with Anthropic and AWS, learn Bedrock tips and tricks, attend LLMOps workshops and learn from AWS and Anthropic experts best practises for deploying GenAI applications.

AWS AI-ML-GENERATIVE AI-LLMs, NETWORK SECURITY, ADVANCED NETWORKING
Latest Updates on AWS Partner Practices and AWS CTO Fellowship Accessible in LinkedIn Profile

- **AWS Machine Learning Specialty Certified**
- **AWS Security Specialty Certified**
- **AWS Accredited-Certified Partner AWS Certified Solutions Architect – Associate**
- **AWS Accredited-Certified Partner AWS Certified Cloud Practitioner**
- **AWS Builders Quest Gold Level AWS WWCS Solution Architect**
- **AWS Partner Accreditation (Business)**
- **AWS Partner Accreditation (Cloud Economics)**
- **AWS Partner Accreditation (Technical)**
- **AWS Partner Cloud Economics Accreditation**
- AWS GenAI-LLMs: AWS Intelligent Document Processing Workshops
- AWS GenAI-LLMs: AWS AI-ML Low-Code, No-Code Immersion Day: Low-Code ML with SageMaker
- AWS GenAI-LLMs: AWS Smart Business Day: Serverless Company Cases Beyond Managed Services
- AWS Solutions-Focused Immersion Day: Cost Monitoring and Observability
- AWS Solutions-Focused Immersion Day: Introduction to AWS Identity and Access Management (IAM
- AWS GenAI-LLMs: Amazon Elastic Kubernetes Service (EKS) using EKS Blueprints & Terraform
- AWS GenAI-LLMs: Building Serverless Event-Driven Architectures: Orchestration and Choreography
- AWS Partner: Security Best Practices (Technical)
- AWS Partner: Security Governance at Scale (Technical)
- AWS Partner: Security Essentials (Technical)
- AWS Immersion Day: AWS Control Tower to Manage and Govern AWS Accounts at Scale
- AWS Immersion Day: Boost your Application Availability with AIOps on AWS Immersion Day
- AWS GenAI-LLMs: SageMaker Immersion Days: Feature Engineering, Foundation Models, Pipelines
- AWS GenAI-LLMs: AI/ML Workshop: SageMaker MLOps: Accelerate & Scale ML Model Operations
- AWS GenAI-LLMs: AI/ML Workshop: SageMaker: Make Generative AI Work for Business
- AWS Partner Machine Learning on AWS (Technical)
- AWS SageMaker: Latest Capabilities Workshop: Improve Governance of ML Projects with SageMaker
- AWS Partner: Building Streaming Data Analytics Solutions on AWS (Technical)
- AWS Partner: Building Batch Data Analytics Solutions on AWS (Technical)
- AWS Partner: Building Streaming Data Analytics Solutions on AWS (Technical)
- AWS Partner: Building Batch Data Analytics Solutions on AWS (Technical)
- AWS Partner Containers on AWS (Technical)
- AWS Partner Machine Learning on AWS (Technical)
- AWS Partner Machine Learning on AWS (Technical)
- AWS Partner Building Data Analytics Solutions using Amazon Redshift (Technical)
- AI-assisted Code Companion Workshop 2022: Amazon CodeWhisperer: ESEC/FSE ‘22, NUS, Singapore
- AWS Resilience Hub Building Application Resiliency & Reliability Solutions-Focused Immersion Day
- AWS Security & Compliance Getting Started with AWS Security Services Solutions-Immersion Day
- AWS Cloud Operations Immersion Day Getting Started with AWS Cloud Operations
- AWS ML Builders Day Amazon SageMaker, ML Models, and MLOps
- Amazon CloudFront Edge Services Solutions-Focused Immersion Day
- Disaster Recovery Strategies on AWS Solutions-Focused Immersion Day
- Getting Started with Control Tower Solutions-Focused Immersion Day
- Introduction to Identity and Access Management Solutions-Focused Immersion Day
- Modernize your Data Warehouse using Amazon Redshift Solutions-Focused Immersion Day
- AWS Partner Building Data Lakes on AWS (Technical)
- AWS Partner Machine Learning on AWS (Technical)
- AWS Partner Machine Learning on AWS (Technical)
- AWS Partner Building Data Analytics Solutions using Amazon Redshift (Technical)
- AWS Partner IoT on AWS (Technical)
- AWS Partner Migrating Your Application to AWS (Technical)

- AWS Partner Advanced Migrating to AWS (Technical)
- AWS Partner Data Analytics on AWS (Technical)
- AWS Data Engineering Building a Data Lake on AWS Solutions-Focused Immersion Day
- AWS IoT Jumping into AWS IoT Greengrass V2 Components Solutions-Focused Immersion Day
- AWS Partner Sales Accreditation (Business)
- AWS Serverless Getting Started with Serverless Solutions-Focused Immersion Day
- AWS Partner Building Data Analytics Solutions using Amazon Redshift (Technical)
- AWS Authoring Visual Analytics using Amazon QuickSight
- AWS Partner Building Data Lakes on AWS (Technical)
- AWS Partner Building Data Analytics Solutions using Amazon Redshift (Technical)
- Amazon Web Services Cloud Best Practices (AWS)
- AWS Partner SAP on AWS (Business)
- AWS Partner SAP on AWS (Technical)
- AWS Partner Security Best Practices (Technical)
- AWS Partner Security Best Practices (Technical)
- AWS Partner Advanced AWS Well-Architected
- AWS Professional Services Big Data and Analytics
- AWS Partner Building Data Lakes on AWS (Technical)
- AWS Partner Machine Learning on AWS (Technical)
- AWS Professional Services Security Best Practices
- AWS Partner Migrating Your Application to AWS (Technical)
- AWS Professional Services Building a Contact Center using AWS
- AWS Partner Security Governance at Scale (Business)
- **AWS Well-Architected Proficient**
- AWS Partner Advanced AWS Well-Architected
- AWS Partner Migrating to AWS (Technical)
- AWS Partner Advanced Migrating to AWS (Technical)
- AWS Partner Containers on AWS (Technical)
- AWS Partner Containers on AWS (Technical)
- AWS Partner Data Analytics on AWS (Technical)
- AWS Partner IoT on AWS (Technical)
- AWS Professional Services Operational Integration Best Practices
- AWS Partner Data Analytics on AWS (Business)
- AWS Partner Foundations for Public Sector (Business)
- AWS Partner Machine Learning on AWS (Business)
- AWS Partner Machine Learning on AWS (Technical)
- AWS Partner Machine Learning on AWS (Technical)
- **AWS Partner Migration Ambassador Foundations (Business)**
- AWS Partner Migration Business Case Development (Business)
- AWS Partner Security Governance at Scale (Technical)
- AWS Partner Security Governance at Scale (Technical)
- AWS Partner Security Governance at Scale (Technical)
- AWS Partner Security Governance at Scale (Business)
- AWS Partner VMware Cloud on AWS (Technical)
- AWS Professional Services Big Data and Analytics
- AWS Professional Services Building a Contact Center using AWS
- AWS Professional Services Cloud Advisory
- **Migration Ambassador Foundations (Business)**
- AWS Partner Well-Architected Best Practices (Technical)
- AWS Professional Services Cloud Adoption Framework
- AWS Partner Advanced Migrating to AWS (Technical)
- AWS Partner Migrating Your Application to AWS (Technical)

- AWS Partner Migrating to AWS (Technical)
- AWS Partner AWS for Microsoft Workloads (Technical)
- AWS Partner Building Data Lakes on AWS (Technical)
- AWS Partner Containers on AWS (Technical)
- AWS Partner Data Analytics on AWS (Technical)
- AWS Partner IoT on AWS (Technical)
- AWS Professional Services Security Best Practices
- AWS Partner Building Your Business with AWS for Executives
- Amazon AWS Designing Blockchain Solutions using Amazon Managed Blockchain
- Amazon AWS Cloud Amazon SageMaker for AI-ML-DL
- AWS Cloud Machine Learning Basics Professional Training
- AWS Cloud Practitioner Essentials Day for US Federal Government
- AWS Cloud Technical Essentials Day for Government
- Amazon AWS Cloud Amazon SageMaker for AI-ML-DL
- Amazon AWS Cloud Data Analytics Fundamentals on AWS
- Amazon AWS Cloud Introduction to Blockchain and Amazon Managed Blockchain
- Amazon AWS Cloud Machine Learning Basics
- Amazon AWS Cloud Strategies and Tools to Perform Large-Scale Migrations
- Amazon AWS Securing Your Cloud: AWS Cloud Security
- Azure Cloud Virtual Training Day DevOps with GitHub Parts 1 & 2
- Azure Cloud Virtual Training Day Implementing Hybrid Infrastructure Parts 1 & 2
- Azure Cloud Virtual Training Day Azure AI Fundamentals: AI, ML, AutoML, NLP, Computer Vision
- Azure Cloud Virtual Training Day Microsoft Azure DATA Fundamentals Parts 1 & 2
- Azure Cloud Virtual Training Day Microsoft Azure Fundamentals Parts 1 & 2
- Azure Cloud Virtual Training Day Microsoft Azure Well Architected 1 & 2

STATE OF NEW YORK CISO ROLE – HEAD OF IT & NETWORK SECURITY ADMINISTRATION
NEW YORK STATE TOP-DIGITAL COUNTY: NEW YORK STATE CAPITOL PRACTICES LEADER

Cybersecurity Industry Standards & Best Practices Development Leader

Under the general direction of the Chief Information Officer (CIO) level executive, IT Administration, the Chief Information Security Officer (CISO) level role serves as a member of the IT Administration senior leadership team and provides domain expertise, direction, and, policy guidance on Cyber Security and IT Administration and Networks Administration. The CISO level role provides direction on information security and privacy across all of enterprise multi-site facilities and programs including all Financial Systems, Healthcare Systems, and State Emergency Response Systems affecting 100,000 constituents. This position has broad authority and management responsibility for protecting the privacy, confidentiality, integrity, and availability of enterprise information and services. The CISO level role aligns services responsible for information security, privacy, and security operations to enable enterprise business objectives within acceptable levels of security and privacy risk.

Benchmarking & Deploying Cybersecurity Risk Engineering for Leading Cyber Deterrence:

Cyber Security Technologies: Applications, Devices, End Points, Hosts, Networks, O/S, UTMs:
AirWatch, Check Point, Cisco, FireEye, Fortinet, Fortis, Intel, McAfee, Microsoft, Palo Alto, PDQ Deploy, ProofPoint, Qualys, Sophos, Symantec, VMWare, WatchGuard, etc.

Best Practices & Industry Standards:
CERT, Cisco, FBI, FIPS, Fire Eye, Gartner, GIAC, ISACA, Microsoft, NIST, NSA, OWASP, SANS, etc.

Penetration Testing-Ethical Hacking Frameworks & Tools
Metasploit, Nmap, Wireshark, Several Others.

Cybersecurity Leader leading, executing, implementing, and, guiding New York State wide and Enterprise wide

IT Administration and Network Administration practices with focused domain expertise in Quant Finance, Cyber Security, Cryptography, Networking-Encryption Protocols, Penetration Testing-Ethical Hacking, Machine Learning Algorithms, Computational Quant Analytics, Risk Analytics.

CISO-Level Cybersecurity-Risk Management Leader, State of New York Civil Services

CISO-Level Cybersecurity-Risk Management Leader: IT Administration & Networks Administration, Government Administration, State of New York Civil Services, reporting to CIO-Level role.

• Enterprise-wide IT, Telecom Networks, Cybersecurity & Risk Management, Controls & Compliance Policies, Best Practices, Strategies, Technologies, including Enterprise Level Implementations, IT Procurements and Contracts.

• Multi-Factor Authentication & Credentialing; User Access Controls & Group Management Policies for all Users including Authentication, Credentials, Password Policies, BYOD MFA & 2FA Policies, Anti-Malware Botnet and Anti-Ransomware Policies, etc.

• Multi-site Systems Administration including Group Management Policies & Configurations, Cybersecurity Risk Management Controls & Compliance Policies, UAC, and Defense-in-Depth against Advanced Threats & Attacks.

• Multi-site Enterprise-wide Telecom Networks, Hosts, Devices, Applications, OSs, and, IPs Vulnerability and WWW Applications Vulnerability Detection & Remediation leading Risk Mitigation, Network Security, Risk Management, & Compliance Policies, Strategies, &, Implementation, and, WWW Security Standards and Secure Coding Practices.

• Multi-site Enterprise-wide Penetration Testing & Ethical Hacking enabling Pre-emptive and Anticipatory Risk Management and Controls for Cybersecurity Risk mitigation for Networks, Applications, Hosts, Devices, Firmware, Embedded Systems, SCADA, and, Third-Party Services and Infrastructure Providers.

• Multi-site Enterprise-wide development of Zero-Trust UTMs, NGFWs, IPS/IDS, VLANs/VTP/STP, and UAC-ACL Policies and Architectures using Network Segmentation based upon industry-leading Cyber Security, Risk Management, and Compliance Policies.

• Multi-site Enterprise-wide Networks, Operating Systems, Hosts, Applications, and Mobile Device Management Security Controls Risk Management Audit & Threat Analysis including Identification, Elimination, Containment & Mitigation of Critical Risks.

Defense-in-Depth Enterprise Networks & Computer Security-Privacy Leader

• Enterprise Networks-Perimeter & Networks Segmentation:
Enterprise Networks-Perimeter and multi-layered Network Segmentation hardening against cyber-attacks tracked by newly upgraded Unified Threat Management infrastructure using Big Data Analytics, High Frequency Time Series Data Analytics, and, Networks Logs Analysis.

• Enterprise Hosts & Server End Point Protection Security:
Endpoint (EP) upgrades for Hardening against Cyber Attacks coupled with Attacks and Malware reports analyses. Continuing bench-marking, Procuring and Implementation focus on more robust EP solutions to integrate, simplify, and, economize current EP & MDM infrastructures.

• Enterprise User Access Controls, Credentials, Passwords:
Passwords, credentials, user access controls (UAC), and, privilege reviews and upgrades at the Policy, Networks-UTM, Operating Systems, Applications, Host, and Device levels and Policies and Processes for tiered UAC and credentials for various internal and external user groups.

• Enterprise Security Content Automation Protocol Implementation:
MS-Windows O/S and Applications hardening based on security, risk, and compliance group policies

development and Active Directory-Group Policy implementations ongoing with Security Content Automation Protocol – Security Compliance Manager.

• Enterprise Microsoft Network Operating Systems & Applications Security:
MS-Windows Active Directory-Group Policy Network Operating Systems security configurations for hardening Windows Network O/S and Microsoft Windows based MS-Office software applications for mitigation of cybersecurity threats & attacks.

• Enterprise Mobile Device Management & Multi-Factor Authentication:
Coordinating enterprise wide administration Mobile Device Management for mobile devices toward simplified administration and MFA/2FA while also reviewing latest technologies for integration of MDM with EP.

Zero-Trust Cybersecurity Architectures & Networks Segmentation Leader

• Zero-Trust Network Segmentation: Benchmarked-selected top-ranked UTM to replace prior NGFW. Reviewed-audited configuration of 125 UTM Policies and RADIUS-based VPN policies to apply robust networking and encryption protocols for mitigating threats from SMB, NetBios, SNMP, NTLM, and, PPTP.

• Security Content Automation Protocol (SCAP): Configured more than 1,000 Group Policies using Security Compliance Manager. Configured, installed, and, implemented active directory (AD) and group policy management (GPM) policies.

• Validation & Audit of IP Networks Subnets & VLANs. Identified-eliminated threats and vulnerabilities in Information Gathering, TCP/IP, General Remote Services, Firewall, and Web Server hardening network, servers, hosts, applications, and devices, and, access controls and authentication protocols such as SSL/TLS, IPSec, STP, and VTP.

• OWASP secure coding practices adoption by Systems, Analysis, and Design teams blocking cyber-attacks such as SQL injection attacks, and, buffer overflow attacks advancing secure PKI authentication and TLS 1.2, IPSec, AES256, and RSA2048.

• Audit of Virtual Private Networks using RADIUS to bolster credentials authentication by advancing mobile VPN Authentication from PPTP to L2TP and IPSec eliminating reliance upon CHAP thus advancing toward enterprise wide non-reversible encryption.

• Reconfiguration & Implementation of AD-GPM Default Domain Controllers Policy for Network Security advancing toward secure Kerberos authorization and authentication architecture for enterprise wide users.

• Reconfiguration & Implementation of AD-GPM Default Domain Policy for securing user credentials advancing upon development of secure host-based user access credentials architecture for enterprise wide users.

• Development & configuration of AD-GPM Password Security Objects (PSOs) to advance development of fine-grained password policies for different privilege levels of enterprise wide internal and external users.

NETWORK & SYSTEMS SECURITY, CYBERSECURITY, ETHICAL HACKING, INTRUSION DETECTION & PREVENTION, NETWORKS PROTOCOLS ANALYSIS: APPLIED R&D IN NEW YORK STATE AND EC-COUNCIL / CEH AUTHORIZED NETWORKS & DARKNETS

Network & Computer Security, Intrusion Detection & Prevention, Networks Protocols Analysis

Access Control Lists, Anomaly Based Intrusion Detection, Application Layer Attacks, Application Layer Protocols, ARP Cache Poisoning, ARP Protocol, ARP Spoofing, Attack Trees for Mitigating Attacks on Banking & Finance Systems, Attack Trees for Mitigating Attacks on SCADA Systems, Backdoors, Behavior Based Intrusion Detection, Bitcoin Protocol, Buffer Overflow Attack, Cisco ASA Firewalls, Cisco Routers, Cisco Switches, Cisco VLANs, Common Vulnerabilities & Exposures, Compromised Key Attack, Crypto-Currency, 'Cryptographic Proof' Based Systems, Denial of Service Attacks, DNS Cache Poisoning , Eavesdropping Attack, FAST Financial Securities

Trading Network Protocol, Firewall Architectures, Firewall Configuration, FIX Financial Transactions Messaging Network Protocol, Format String Overflow Attack, FTP Protocol, Heap Overflow Attack, High Interaction Honeypots, Honeynets, Honeypots, Honeypots Legal Issues, Host Based Intrusion Detection Systems, HTTP Protocol, ICMP Attacks, ICMP Protocol, Incident Analysis, Incident Containment Strategy, Incident Documentation, Incident Evidence Gathering & Handling, Incident Handling & Incident Response, Incident Handling of Denial of Service Attacks, Incident Handling of Inappropriate Usage , Incident Handling of Malicious Code Attacks, Incident Handling of Multiple Component Incidents, Incident Handling of Unauthorized Access, Incident Prioritization, Intrusion Detection & Prevention Forensics, Intrusion Detection Systems, Intrusion Prevention Systems, IP Address Spoofing, IP Attacks, IP Fragmentation Attacks, IP Fragmentation Flooding, IP Packet Fragmentation, IP Protocol, IPSec, Keyloggers, Knowledge Based Intrusion Detection, LAN Design, LAN Switching, Layer-2 Connection Hijacking, Low Interaction Honeypots, MAC Spoofing , Malware, Man in the Middle Attacks, Medium Interaction Honeypots, Misuse Based Intrusion Detection, Network Address Translation, Network Based Intrusion Detection Systems, NMap Network Analyzer, OSI Model, OSSEC, Packet Filtering, Padded Cells, Password Attacks, Phishing Attacks, Ping Flooding Attack, Ping of Death Attack, Port Address Translation, Port Forwarding Attack, Port Redirection Attack, Proxy Services, Reconnaissance Attacks, Router Configuration, Router Operation, Router Security, Routing Attacks, Routing Protocols, Rule Based Intrusion Detection, Signature Based Intrusion Detection, SMTP Protocol, Smurf Attacks, Sniffing Attack, Snort, Social Engineering Attacks, Spear Phishing Attacks, SSL/TLS Protocols Security and Vulnerabilities, Stack overflow Attack, Stateful Firewalls, Statistical Based Intrusion Detection, Subnetting, Suricata, Switch Configuration, Switch Security, SYN Flood Attack, TCP Attacks, TCP Dump Network Analyzer, TCP Layer Attacks, TCP Port Scanning Attacks, TCP Protocol, TCP Session Hijack, TCP Session Poisoning, TCP SYN Flooding, TCP/IP, TCP/IP Connection Hijacking, TCP/IP Model, TCP/IP Security Flaws, Teardrop Attack, Tracking Cookies, Traffic Amplification, Trojan Horses, Trust Exploitation Attacks, UDP Flood Attacks, Virtual Private Networks, Viruses, VoIP Phishing Attacks, VPN, VPN Security, Wireless Intrusion Detection Systems, Wireless Intrusion Prevention Systems, Wireless LAN Attacks, Wireless LAN Threats, Wireless LAN Security, Wireshark Network Analyzer.

Networks Penetration Testing & Ethical Hacking with Metasploit, Nmap, Wireshark, etc.

Access Control Misconfiguration Vulnerabilities, Active Dictionary Attack, Active Footprinting, Active Information Gathering, Apache Vulnerability Analysis, Asterisk Exchange Server Configuration, Asterisk Virtual Machine Configuration, Audacity Audio Editor & Recorder, Banner Grabbing, Brute Force Password Attacks, Brute Forcing with Dictionary Attacks and NCrack, Cain & Abel ARP Poison Routing, Cain & Abel IAX2 Packet Flooding Attack, Cain & Abel Man in the Middle Attack, Cain & Abel Network Sniffing Attack, Cain & Abel Passive Eavesdropping Attack, Cain & Abel Password Cracking Attack, Cain & Abel VoIP Traffic Hijacking Attack, Covert Penetration Testing, Dictionary Password Attacks, Digiphone Hard Phones Configuration, E.164 Alias Enumeration, Ekiga Softphone Configuration, Enumerated Open and Closed Ports and Services, enumIAX for exploiting IAX Vulnerabilities, Ethical Hacking Challenges, Exploitation, Fingerprinting Remote Host Services, Flag Capture Challenge Competitions, Getif for SNMP Exploitation, H.323 Debugging, H.323 Device Enumeration, H.323 Username Enumeration, Hashcat Password Cracking of Hashed Salted 64-bit SHA256 Passwords , Hydra Password Attack with Wordlists, IAX Username Enumeration, IAXComm Softphone, Intelligence Gathering Using CLI, Intelligence Gathering Using WWW, John the Ripper Password Cracking Attacks, Kali Virtual Machines Configuration, Key Generation Vulnerabilities, Linux Misconfiguration Vulnerabilities, Linux Virtual Machines Configuration, Man-in-the-Middle Attack on IAX MD5 Authentication, md5 Hash Generator Password Cracker, Metasploit Pro Framework and Associated Tools & Scripts, Metasploit Pro Advanced Nmap Scanning, Metasploit Pro Armitage, Metasploit Pro Basic Exploitation, Metasploit Pro Brute Forcing Ports, Metasploit Pro Brute Forcing SSH Login Using SNMP, Metasploit Pro Creating & Executing Single Encapsulation Payload, Metasploit Pro Creating & Executing Multiple Encapsulation Payload, Metasploit Pro Delivering Payload through xp_cmdshell, Metasploit Pro Executing Exploit as a Background Job, Metasploit Pro Exploitation of Linux Machine, Metasploit Pro Exploitation of Windows Machine, Metasploit Pro Exploits, Metasploit Pro Framework, Metasploit Pro FTP Scanning, Metasploit Pro Meterpreter Compromising Windows Machine, Metasploit Pro Meterpreter Dumping the Password Hashes, Metasploit Pro Meterpreter Extracting the Password Hashes, Metasploit Pro Meterpreter Killing Antivirus Software, Metasploit Pro Meterpreter Leveraging Post Exploitation Modules, Metasploit Pro Meterpreter Migrating a Process, Metasploit Pro Meterpreter Obtaining System Password Hashes, Metasploit Pro Meterpreter Passing the Hash, Metasploit Pro Meterpreter Pivoting onto Other Systems, Metasploit Pro Meterpreter Privilege Escalation, Metasploit Pro Meterpreter Scraping a System, Metasploit Pro Meterpreter Upgrading Command Shell to Meterpreter, Metasploit Pro Meterpreter Using Persistence, Metasploit Pro Meterpreter Using Scripts, Metasploit

Pro Meterpreter Viewing Traffic on Target Machine, Metasploit Pro MS SQL Attacks , Metasploit Pro MS SQL Server Brute Forcing, Metasploit Pro MSF Exploit Execution, Metasploit Pro Msfcli, Metasploit Pro Msfconsole, Metasploit Pro MSFencode, Metasploit Pro Payloads, Metasploit Pro Port Scanning, Metasploit Pro Post Exploitation , Metasploit Pro Reverse TCP Payload Using Meterpreter, Metasploit Pro Server Message Block Scanning, Metasploit Pro SNMP Sweeping, Metasploit Pro SSH Server Scanning, Metasploit Proable Virtual Linux Machine Attacks, MySQL Vulnerability Analysis, Nessus for Discovering Vulnerable Services, Netcat to Create Backdoor Tunnel into Target Host, Netcraft Passive Information Gathering, Netstat to Display Kernel IP Interface table, Netstat to Display Kernel IP Routing table, Network Vulnerabilities Scanning, Nikto for Scanning Web Management Interfaces, Nmap Aggressive Network Scanning, Nmap Brute Forcing HTTP Authentication, Nmap Brute Forcing Password Auditing Joomla! Sites, Nmap Brute Forcing Password Auditing WordPress Sites, Nmap Brute Forcing SMTP Passwords, Nmap Detecting Backdoor SMTP Servers, Nmap Discovering UDP Services, Nmap Enumerating Host IP Protocols, Nmap Enumerating Users in an SMTP Server, Nmap Finding SQL Injection Vulnerabilities in Web Applications, Nmap Fingerprinting Host Operating System, Nmap Host Discovery, Nmap ICMP Ping Scans, Nmap Interactive Execution on Remote Host, Nmap List Scan, Nmap Matching Services with Security Vulnerabilities, Nmap Passive Network Scanning, Nmap Scanning for Open Ports and Services, Nmap Script Scanning, Nmap TCP ACK Ping Scans, Nmap TCP Idle Scan, Nmap TCP SYN Ping Scans, Nmap Testing Default Credentials in Web Applications, Nmap UDP Ping Scans, Nmap Vulnerability Script Scanning, NSLookup Passive Information Gathering for DNS, Offline Dictionary Attack, OpenSSH Vulnerability Analysis, OSINT, Overt Penetration Testing, Passive Footprinting, Passive Information Gathering, Password Retrieval, Penetration Testing Execution Standard (PTES), PTES From Start to End, Penetration Testing From Start to End for a Client, Port Scanning with Metasploit Pro, Post Exploitation, Post-Engagement Reports, Pre-Engagement Activities Report, Pre-engagement Interactions, Protocol Authentication/Registration Sniffing, Protocol Device Enumeration, Remote Code Execution Vulnerability Exploitation, Remote Host User Password Cracking, Remote Host User Privilege Escalation, Reporting, RPC Vulnerability Analysis, rtpbreak for RTP Stream Analysis, rtpflood for Denial of Service Attack, Session Initiation Protocol, Session Initiation Sniffing, Setting Up IVR with Asterisk, sflphone Softphone Configuration, SIP Device Enumeration, SIP Encryption Vulnerabilities, SIP Protocol, SIP Username Enumeration, SIPVicious Security Tools, SIPVicious svcrack, SIPVicious svcrash, SIPVicious svmap, SIPVicious svreport, SIPVicious svwar, SSH for Proxying Remote Host Services Using SOCKS, SSH Tunneling Between Multiple Hosts, SSH Tunneling Using Local Forwarding, SSH Tunneling Using Remote Forwarding, SSH Tunneling Using Port Forwarding, SSH Vulnerability Analysis, Stealth Scanning by Spoofing IP Address, Targeted Host Reconnaissance, The Phases of the PTES, Threat Modeling, vnak Multiple Protocol Attacks, VoIP Caller ID Spoofing , VoIP Phishing Attacks, Vulnerability Analysis, Vulnerability Scanners, Whois Lookups (Diverse) Passive Information Gathering, Windows XP Virtual Machines Attacks, Wireshark Network Protocol Analysis, Wireshark Data Stream Capturing, Wireshark Data Stream Playback, Wireshark Packet Capture Analysis, Wireshark RTP Stream Analysis, Wireshark Sniffing, Wireshark Traffic Graph Analysis, Wireshark UDP Stream Analysis, Xlite Softphone Configuration, ZenMap Network Scans using Diverse Modes.

Other Technologies of Computational Quantitative Modeling, Quantitative Finance & Risk Management

- Advanced Management Information Systems & DSS, Advanced Management Control Systems
- Advanced Wireless Networks: Network Intrusion Detection-Prevention, CCNA, ICND1, ICND2
- Algorithms: Graph Models, Dynamic & Linear Programming, Computational Complexity
- Algorithms: Social Networks-Game Theory-Nash Equilibrium-Financial Markets Models
- Algorithms: Mathematical Models of Automata, Computability & Formal Languages
- Algorithms: Computational Mathematical Models of Cryptography & Encryption Protocols
- Bayesian Inference and Markov Chain Monte Carlo Models with Value-at-Risk (VaR) Models
- C++11 Concurrency & Multi-threading, Machine Learning, & AI Neural Network Models
- C++ Mathematical Finance Derivatives Pricing & Software Engineering Algorithms
- C++ Design Patterns Financial Programming for Derivatives & Options Pricing
- C++ , Math & Statistics for Financial Engineers Courses, University of California Berkeley
- Cybersecurity-Signal Processing: Cryptography, Finance Protocols, Information Assurance
- MATLAB Advanced Financial Econometrics Markov Chain & Monte Carlo Models
- MATLAB Market Risk, Credit Risk, Volatility, VaR, ARCH, GARCH, EVT, ES Model
- MATLAB/MS-Excel/C++ Credit Risk Management & Credit Risk Derivatives Models
- MATLAB Stocks and Equity Portfolio Management & Equity Derivatives Models

- MATLAB Continuous Time Interest Rates, Yield Curve, Fixed Income Derivatives Models
- MATLAB Stochastic Numerical Methods & Mathematics for Quantitative Finance
- MATLAB Artificial Intelligence-Machine Learning-Fuzzy Logic-Chaotic Time Series Models
- MATLAB Advanced Finance Portfolio Theory, CAPM & APT Matrix Algebra Models
- MS-Excel Market Risk, Credit Risk, Volatility, VaR, ARCH, GARCH, EVT, ES Models
- MS-Excel/VBA Hedge Fund Statistical Risk/Returns, Asset Pricing, Market Risk Models
- MS-Excel/VBA Fixed Income Portfolio Management & Fixed Income Derivatives Models
- MS-Excel/VBA Advanced Quantitative Models of Utility Theory & Portfolio Management
- MS-Excel/VBA Advanced Statistical, Financial Econometrics & Optimization Models
- MS-Excel/VBA/ACL Advanced Financial: Accounting, Auditing, Taxation Research
- MS-Excel/VBA/Solver Operations Research & Network Programming Models
- MS-Excel/VBA/Solver Finance, Investments, Accounting Decision Models
- Network Protocols Analysis & Penetration Testing with Metasploit, Nmap, and Wireshark
- Python SciPy, NumPy, pandas, ScikitLearn, TensorFlow, Jupyter and Other Technologies
- Python, NumPy, pandas, Jupyter Notebook: Formulating Algorithmic Trading Strategies
- Python Time Series, Deep Learning DNNs & Machine Learning OLS & Logistic Regressions
- Python Tick Server & Clients for Streaming Data with ZeroMQ & plot.ly
- Python Interactive Visualisation with Eikon API & Cufflinks
- Python Automated Trading Algo Implementation: Oanda Platform
- Python Automated Trading Algo Implementation: Interactive Brokers & Gemini
- Qualitative Survey Research Methods in Organizational Controls & Compliance Analysis
- SAS Advanced Programming, SAS SQL Processing & SAS Macro Programming Courses
- SAS Large Scale Data Models of High-Frequency Econometrics & Market Microstructure
- SAS Advanced Quantitative Models of Macroeconomics & Microeconomics Analysis
- SAS/SPSS Statistical Analysis of Variance (ANOVA) & Co-Variance (ANCOVA) Models
- SAS/SPSS Applied Multivariate Analysis & Applied Regression Analysis Models
- SAS/SPSS Correlation, Multivariate Regression & Inferential Statistics Models
- SAS/SPSS Quantitative Statistical Structural Equation Models in Behavioral Science
- SAS/SPSS Quantitative Statistical Methods in IT, Organizations & Social Sciences
- Statistical Multivariate Regression & Structural Equation Models of Risk Management

GLOBAL MEDIA REVIEWS & DIGITAL VENTURES IMPACT

AI-ML-DL-Quant-Cyber-Crypto-Quantum-Networks Engineering and Quantitative Finance-Risk Computing-Modeling Digital ventures ranked and recognized as global industry benchmarks in worldwide global and national business technology media such as the Wall Street Journal, New York Times, Fortune, Inc., Fast Company, Business Week, CIO Magazine, CIO Insight, Computerworld, Information Week, etc. and in worldwide institutions such as Harvard, MIT, Princeton, Stanford, Wharton, etc. Global-national media interviews on AI-Cybersecurity-Digital ventures by Business-IT media such as Business Management Asia, Business Management Europe, Fortune, Inc. Technology, Wall Street Journal, Information Week, CIO Magazine, CIO Insight, Computerworld, Software Magazine, etc.

UNIVERSITY TEACHING EXPERIENCE

SUNY Poly Lumen Circles Fellowship: **Course Design for Student Success, 2023.**
Active engagement in the peer-to-peer faculty fellowship provided a great opportunity for advancing execution of AI Strategy for SUNY-Poly having earlier led MIT Management & Leadership AI Strategy as MIT C-SAIL and MIT Sloan School of Management Faculty-SME Learning Facilitator and Head Resource Mentor for 1,000 worldwide CEOs-CxOs and senior leaders from across US and global worldwide organizations such as Google, Microsoft, Tesla, Weill Cornell Medicine, etc. for:

- Building our AI-ML courses content and presentation focus as well as Learning-Teaching process focus advancing on my 30-years R&D in AI & Machine Learning, Knowledge Management, and Educational Psychology over & beyond PhD
- Developing our AI-ML curriculum and Learning-Teaching methodology to ensure that our graduates
    - Will be able to master as well as build and design the latest generations of AI-ML
    - Will not be simply replaced by the current and foreseeable generations of AI-ML
- Building AI-ML Andragogy for both Students learning AI-ML as well as for Faculty across all areas of STEM and other faculty teaching areas including Arts & Sciences and Business motivating professors to think of designing Curricula and Learning-Teaching methodologies for the era where Humans will need to compete with AI-Machines and Robots for jobs.
- Building state, US national, and global policies Future of Education & Learners-Doers framework motivated by the focus on "Will You Be Replaced By AI and How to Make Sure That You Will Be Not" for Universities and Institutions of Higher Learning, and, Students, Teachers, Learners, and Doers having earlier led worldwide global national Knowledge Societies policies development as United Nations world HQ invited expert on Human Capital, Intellectual Capital, Social Capital, and related Quantitative Methods, Measures, Models while serving as Syracuse University professor.

SUNY Polytechnic Institute, **Computer Science AI-Machine Learning Faculty, 2023**

2023-2023 SUNY Poly Lumen Circles Fellow-AWS Academy Educator, AI-Machine Learning
SUNY Poly Courses Taught: CS 495 Artificial Intelligence, CS 542 Machine Learning
AWS Academy Educator, Activated SUNY Poly as a Member of AWS Academy
AWS-SageMaker-StudioLab-JupyterLab-Keras-Scikit-TensorFlow-Pandas-NumPy

The courses have three aims guided by instructor's Artificial Intelligence (AI) and Machine Learning (ML) R&D guiding programs such as MIT Computer Science & AI Lab and Princeton Quant Finance & Trading Conferences, Pentagon Joint Chiefs ABMS-JADC2, and the State of New York among other worldwide organizations. *First*, critical analysis of intuitive applied AI-ML knowledge built by the world-leading AI-ML Stanford Computer Science & Engineering DeepLearning.AI curricular focus to address large-scale real-world failures of such systems. *Second*, critical review of the world-leading AI-ML Computer Science & Engineering R&D practices by world-leading AI-ML companies such as Amazon-AWS to address Quantum Uncertainty, Dynamic Uncertainty and Adversarial Uncertainty on which instructor's R&D leads industry practices. *Third*, Computer Science & Systems Engineering advancement of 'Data-Driven' AI-ML to 'Network-Centric' Management of Dynamic Change, Quantum Uncertainty and Complexity as Self-Adaptive Complex Systems & Chaos pioneer recognized in the global press such as *The New York Times* and *The Wall Street Journal*.

SUNY Polytechnic Institute, AWS Academy Educator, 2023

AWS Academy Empowering higher education institutions to prepare students for industry-recognized certifications and careers in the cloud.

Bridging the gap between industry and academia

As cloud technologies continue to help organizations transform at a rapid pace, employees with the necessary cloud skills are in high demand. According to LinkedIn data, cloud computing is the number one hard skill companies need most.

AWS Academy provides higher education institutions with a free, ready-to-teach cloud computing curriculum that prepares students to pursue industry-recognized certifications and in-demand cloud jobs. Our curriculum helps educators stay at the forefront of AWS Cloud innovation so that they can equip students with the skills they need to get hired in one of the fastest-growing industries.

Executive Education Faculty: MIT Computer Science & AI Lab-Sloan School of Management, **2017-2018**

- MIT Sloan School of Management and MIT Computer Science & AI Lab (C-SAIL)
- Curriculum Directors: Professor Tom Malone (Sloan School), and, Professor Daniela Rus (C-SAIL)
- Curriculum: AI & Business Strategy: Management and Leadership: AI, Machine Learning, Deep Learning, Natural Language Processing, Robotics – Self-Driving Cars, and, Robotic Process Automation.
- Get Smarter (U2): Member of Global Executive Education Teaching Faculty Team.

Head Resource Mentor & Learning Facilitator, Industry Expert-SME: AI, ML, DL, NLP, Robotics, RPA.

Selected Digital Transformation & Knowledge Management Executive Education & Research Lectures

- Carnegie Mellon University, Graduate School of Industrial Administration
  (in affiliation with the University of Pittsburgh, Katz Graduate School of Business)
- Northwestern University, Kellogg School of Management
- Queen's School of Business, Canada
- INSEAD, Fontainebleau, France

SUNY-CCC, STEM Computer Science Faculty, **2015-2016**

- Computer Science-Networking Technologies & Security Track
- Computer Science-Web Technologies Track
- Computer Science-Advanced Analytics Track
- Computer Science-Information Technologies Track

Syracuse University, Martin J. Whitman School of Management, **2001-2009**
Syracuse University Associate Professor of Accountancy - Promoted; MIS Merged into Accounting Dept.:
Represented Accounting Department as Dean's AACSB Learning Assurance Committee Member
• 2008-2009: Associate Professor of Accountancy - Promoted; Leading to SUNY Poly Accountancy R&D.
• 2001-2008: Assistant Professor of Quantitative Methods: MBA IT-Operations Research Faculties
• 2008 AACSB Impact Research Report: R&D Impact Among Quant-Finance Nobel Laureates such as Black-Scholes, Harry Markowitz & William Sharpe.
Average teaching evaluations approximately between 4.0 and 4.8 on 5-point scale.
Developed maximum new graduate and undergraduate courses compared to other departmental faculty.

Inter-disciplinary University & College Teaching Faculty Certifications

Entrepreneurship Teaching Faculty, Kaufman Foundation, LLEEP, Syracuse University, 2003
SAP CRM Teaching Faculty, SAP University Alliance, Syracuse University, 2003
SAP ERP Teaching Faculty, SAP University Alliance, Syracuse University, 2003

Undergraduate Courses focused on Accounting-Economics-Finance-IT-OR Applications:
- Introduction to Management Science
- Business Decision Models
- Decision Support Models
- Information Systems for Managers

Graduate and Executive MBA Courses focused on Accounting-Economics-Finance-IT-OR Applications:
- Principles of Management Science
- Information Systems and Electronic Commerce
- Electronic Commerce and e-Business
- Knowledge Management
- Computer Proficiency for Managers
- Management Information Systems

Teaching and Mentoring PhD Students:
- Syracuse University Information School, External Examiner, PhD Thesis Defense Committee
- Syracuse University Whitman School, PhD Finals and Thesis Committees

School/Department Service:
- Accounting, Whitman School of Management Undergraduate Board Department Representative
- Accounting, Dean’s Committee, AACSB Learning Assurance and Accreditation
- MIS and IT, Departmental Committee, Undergraduate Core Courses Committee

- MIS and IT, Core Courses Department Committees for Benchmarking & Developing Core Courses
- MIS PhD Candidate Selection and Recruitment Committees
- MIS PhD Candidate Comprehensive Examination Committees
- MIS PhD Candidate Ph.D. Thesis Proposal Committees
- Advising, Mentoring, and Supervision of Graduate Research/Teaching Assistants
- Advising, Mentoring, Training, and Facilitation of Web Venture Development Teams
- Syracuse University School of Information Studies Invited Presentation
- Inter-disciplinary Curriculum Innovation Presentation
- Management Information & Decision Sciences Colloquia

University Service:

- Syracuse University Committee on Intellectual Property
- Information School Dean and Faculty Selection and Recruitment Committees
- NSF Integrative Graduate Education & Research Traineeship (IGERT) Proposal, Co-PI.
- Ph.D. Committee for Heshan Sun, Syracuse University Information School, External Reader
    - Placement: University of Arizona Information School

Professional Service:

- Queen's University School of Business, Ontario, Canada, 2006, Invited Lecture & Presentations
- United Nations, NY Headquarters, 2002-2003, Expert Paper, Global Expert Panel, and Expert Keynote
- National Science Foundation, 2002-2005, $500K SBIR/STTR Grants Expert Panelist
- National Science Foundation, 2002, Phase I $100K SBIR/STTR Grants Expert Panelist
- Editorial-Advisory Boards & Referee Panels, Premier STEM and MIS/IS/Comp. Sc. Journals
- Editorial-Advisory Boards & Referee Panels, Premier STEM and MIS/IS/Comp. Sc. Conferences

- Commendation from the Syracuse University Chancellor and President, Dr. Nancy Cantor, on receipt of the Fulbright Canada Visiting Research Chair invitation at the Queen's University, April 5, 2005:
  "*Receiving an invitation to compete for this prestigious position is very impressive and reflects the high quality of your scholarly work. I have also very much enjoyed reading about your many engagements in the larger global community. You have certainly embraced the spirit of serving the public good and illustrate how a university, as a source and generator of knowledge, can impact other countries and institutions. I congratulate [you] on your hard work as both a scholar and a citizen of the world*."
- First Tenure-Track faculty recruited as Assistant Professor of Quantitative Methods, IT/OR department.
- Developed and taught graduate and undergraduate courses spanning Information Systems and Data Science and Quantitative Analytics at both levels such as Decision Support Systems, Decision Modeling and Mathematical Modeling using Spreadsheets.
- While serving on MBA IT and Operations Research and Information Systems faculties, taught Data Science and Analytics focused courses to both graduate and undergraduate students.
- Responsibilities included national benchmarking and upgrade of Core Information Systems curricula and service as departmental representative for AACSB learning quality accreditation of the Accounting undergraduate curriculum after the Information Systems area was merged into Accounting.
- In addition, developed and taught other undergraduate and graduate courses focused on Social Sciences such as Management Information Systems, e-Business, and, Knowledge Management.
- Institutional representative at the United Nations world HQ while serving as Quant expert on global expert panels of the United Nations Department of Economic and Social Affairs having received invitation in individual professional capacity as a Knowledge Management domain expert.
- Institutional representative at the National Science Foundation national headquarters while serving on national expert panels for review and award of multi-million-dollar SBIR/STTR grants for advancing U.S. innovations in Cyber Computing and Cyber Security having received invitation in individual professional capacity as a Knowledge Management domain expert.

Florida Atlantic University, College of Business, 1998-2001

Assistant Professor of Management Information Systems.

Developed maximum new graduate and undergraduate courses compared to other departmental faculty.

- First Tenure-Track faculty recruited as Assistant Professor of MIS to develop inter-disciplinary Social Science and IT focused curriculum integrating e-Business and Knowledge Management.
- Developed and taught graduate and undergraduate courses spanning Quantitative Analytics at both levels such as Decision Modeling using Spreadsheets in addition to developing and teaching undergraduate, graduate MBA, and, Executive MBA programs spanning multiple campuses.
- **Kellogg School of Management, Invited Executive Education Faculty**, Executive Education Lecture.
- **Carnegie Mellon University, Invited Executive Education Faculty**, Executive Education Lecture.
- Government of Mexico: Cabinet Ministers, 13 CIOs, and 600 Executives: Invited Keynote Presentation.
- Nation of S. Korea: Maeil Business Newspaper: National TV Interview & Invited Keynote Presentation.

University of Pittsburgh Information Systems & Information Science, Carnegie Mellon GSIA, **1993-1998**

Lecturer of Management Information Systems, College of Business 1998-1998

- Government of Netherlands: Invited Advisor to the Parliamentary Cabinet Minister, Dutch Ministry of Education, Culture and Science.

Teaching and Mentoring PhD Students:

- Carnegie Mellon University, PhD Seminar Session on Quantitative Survey Research Methods
- University of Pittsburgh Information Sc. School, PhD Seminar Session on Intellectual Property

PROFESSIONAL ASSOCIATIONS

Academic and Professional Memberships have included the Beta Gamma Sigma, Phi Kappa Phi, Board Directors and Chief Risk Officers Group, Armed Forces Communications and Electronics Association (AFCEA), the Rome Reps (Griffiss Air Force Research Lab), the ARRL (American Radio Relay League), the Academy of Management, IFIP Working Groups 8.2, the Association for Information Systems (AIS), the Association for Computing Machinery (ACM), and, the Institute of Electrical and Electronics Engineers (IEEE) among others.