Keynote Speakers

Craig Fischer | Program Manager, Financial Innovation & Transformation (FIT)
Affiliation: Bureau of the Fiscal Service, U.S. Department of the Treasury
Title of Talk: “Lessons From the Frontlines: Blockchain in Government” (Reinert Lecture)

Craig Fischer is a program manager within the U.S. Department of the Treasury’s Bureau of the Fiscal Service who is focused on understanding the impact emerging trends and technologies will have on government finance. He leads the agency's blockchain work, where he and his team have carried out four proofs of concept over the past three years. Prior to FIT, Fischer held positions with a “Big Four” consulting firm, the Chief Financial Officer’s (CFO) Council, House Committee on Oversight and Government Reform, and the Government Accountability Office (GAO). He holds an MPA from the University of Nebraska-Omaha and a B.S. in education from the University of Nebraska-Lincoln.

Adam Goldberg | Acting Assistant Commissioner, Office of Financial Innovation & Transformation
Affiliation: Bureau of the Fiscal Service, U.S. Department of the Treasury
Title of Talk: “Lessons From the Frontlines: Blockchain in Government” (Reinert Lecture)

Adam Goldberg is the acting assistant commissioner of the Office of Financial Innovation and Transformation (FIT) at the Treasury Department's Bureau of the Fiscal Service. Within FIT, he supports financial management transformation initiatives that emphasize the use of emerging technologies. He previously served as a treasury adviser to the Minister of Economy and Finance in the Republic of Guinea, supporting efforts to improve cash management. Goldberg joined Treasury after spending six years at the Office of Management and Budget (OMB) as the chief of the Financial Analysis and Systems Branch, where he was responsible for financial management policy development and oversight. Before OMB, he held senior leadership positions at Unisys and Andersen, supporting financial management and system improvement efforts at federal agencies. Goldberg began his career at the Defense Logistics Agency. He holds a B.A. in political science and history from the University of Rochester and an MPA from the Maxwell School of Citizenship and Public Affairs at Syracuse University.

John Birge | Jerry W. and Carol Lee Levin Distinguished Service Professor of Operations Management
Affiliation: The University of Chicago Booth School of Business
Title of Talk: “Uses of AI in Portfolio Optimization” (AI in Finance Keynote)

John Birge is the Jerry W. and Carol Lee Levin Distinguished Service Professor of Operations Management at the University of Chicago Booth School of Business. His work focuses on application, theory, and computation for decision-making under uncertainty with applications in the management of operations in finance, energy, health care, manufacturing, public policy, and transportation. He is an INFORMS Fellow, MSOM Society Distinguished Fellow, member of the U.S. National Academy of Engineering, and editor-in-chief of Operations Research.
Keynote Speakers

**Clare Sullivan** | Visiting Professor, Law Center; Managing Director, Cyber SMART Research Center  
Affiliation: Georgetown University  
**Title of Talk:** “Open Banking — A New Era for Financial Services and a New Challenge for Data Protection”  
(Cybersecurity in Finance Keynote)

Clare Sullivan is cyber-lawyer specializing in digital identity, international privacy and data protection, blockchain, and cybersecurity. She is a visiting professor at the Law Center, a fellow at the Center on National Security, and managing director of Cyber SMART Research Center, all at Georgetown University. At Cyber SMART, she also leads the cyber law and digital identity research teams. An attorney with many years in international legal practice, Professor Sullivan has advanced degrees in law including a Ph.D. in cyber law, and has been awarded both a Fulbright Scholarship and an Endeavor Fellowship.

Professor Sullivan is the author of *Digital Identity*, the first text to define and examine digital identity from a legal perspective and its implications for government, business, and individuals. She has authored internationally published articles and book chapters on digital identity, blockchain, privacy, and cybersecurity; and reports covering those areas for the U.S., U.K., and Australian governments, for the Commonwealth Secretariat, and for the World Bank.

Session Speakers

**Nikhil Aggarwal** | Managing Director, Head of Financial Crimes Analytics  
Affiliation: Promontory Financial Group, an IBM Company  
**Title of Talk:** “Innovation in Anti-Money Laundering: Applications of AI”

Nikhil Aggarwal advises clients on anti-money laundering, financial crimes compliance, and regulatory matters. He has extensive experience in program design and review, with a focus on applying machine learning and analytics to risk assessments, client risk rating models, transaction monitoring systems optimization, suspicious activity reporting, metrics and reporting, and model validation. His client engagements primarily focus on improving the effectiveness and efficiency of transaction monitoring systems by deploying machine learning models, undertaking rule design and threshold tuning/calibration, and deploying case/alert risk-scoring models.

Prior to joining Promontory, he was with Standard Chartered Bank with responsibility for the financial crime compliance analytics function. Earlier in his career, he worked with Citibank and Bank of America in marketing and risk analytics. Aggarwal earned an MBA from the University of California and holds a master’s degree in economics from the University of Southern California.

**Zacharia Atya** | Director  
Affiliation: Pre-launch Company at High Alpha  
**Title of Talk:** “Ensuring the Future with Cyber Insurance”

Zacharia Atya is Clements Worldwide's resident expert on cyber and technology risk. His academic background is in cybersecurity management and policy, with a minor in marketing. Early in his professional career as an underwriter, he analyzed cyber risk profiles of small businesses through multibillion-dollar corporations. Now, he partners with organizations to provide enterprise-wide risk management consulting services while helping them practice good cyber hygiene.
Session Speakers

R. Chandramouli | Hattrick Chair Professor, Electrical and Computer Engineering, Schaefer School of Engineering & Science
Affiliation: Stevens Institute of Technology
Title of Talk: “Machine Learning for Behavioral Cybersecurity in Financial Enterprises”
R. Chandramouli (Mouli) is the Thomas Hattrick Chair Professor of Information Systems in Electrical and Computer Engineering (ECE) at Stevens Institute of Technology. Before joining Stevens, he was on the ECE faculty at Iowa State University, Ames. His research covers cognitive radio networking, dynamic spectrum management/access, text analytics, forensics, social media analytics, security, as well as prototyping/experimental research in these areas. Research and technology transition projects in these areas are funded by the National Science Foundation, National Institute of Justice, Department of Defense, and industry. He is a recipient of the NSF CAREER Award. For further information, visit http://www.mouli.me.

Bülent Yener | Professor, Department of Computer Science
Affiliation: Rensselaer Polytechnic Institute
Title of Talk: “AI/ML in Cybersecurity — An Adversarial Perspective”
Bülent Yener is a professor in the Department of Computer Science and the founding director of the Data Science Research Center at Rensselaer Polytechnic Institute (RPI) in Troy, New York. He received his M.S. and Ph.D. degrees in computer science, both from Columbia University, in 1987 and 1994, respectively. Before joining RPI, he was a member of the technical staff at the Bell Laboratories in Murray Hill, New Jersey. He is a member of AAA, a senior member of ACM, and a fellow of IEEE.

Michael Hind | Distinguished Research Staff Member and Member of IBM Academy of Technology
Affiliation: IBM Research AI, IBM T.J. Watson Research Center
Title of Talk: “What Are the Research Challenges in Trusted AI?”
Michael Hind is a distinguished research staff member in the IBM Research AI department in Yorktown Heights, New York. His current research passion is the area of trusted AI, focusing on governance, transparency, explainability, and fairness of AI systems. He has authored over 50 publications, served on over 50 program committees, and has given several keynotes and invited talks at top universities, conferences, and government settings. Hind has led dozens of researchers to successfully transfer technology to various parts of IBM and helped launch several successful open source projects, such as AI Fairness 360 and AI Explainability 360. His 2000 paper on adaptive optimization was recognized as the OOPSLA’00 Most Influential Paper and his work on Jikes RVM was recognized with the SIGPLAN Software Award in 2012. Hind is an ACM Distinguished Scientist, and a member of IBM’s Academy of Technology.
Session Speakers

**Tommy Zovich** | Managing Director, Head of Americas Electronic Trading Product
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**Affiliation:** Bank of America
**Title of Talk:** “An Overview of Electronic Trading & Common Opportunities Around AI and Cybersecurity”

Tommy Zovich is a managing director of the Americas Electronic Trading for Bank of America. His role oversees the electronic trading product, which includes the electronic trading platform, algorithmic trading, smart order routing, market access, and agency trading risk. In addition, his work aligns the needs of the electronic product with quantitative trading research, data services, and client consulting services that accompany the product.

In his last position, Zovich was the head of Credit Suisse’s Americas AES Product. Prior to Credit Suisse, he was the CEO of Radium Fund Advisors where he was responsible for the day-to-day business activities of the statistical arbitrage firm, its relationships, and its microstructure research. He has also held prior positions at Tudor Investment Corp and Morgan Stanley and is a graduate of Boston College and Columbia University.

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**Bill Gordon** | Managing Director
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**Affiliation:** Globalis Partners
**Title of Talk:** “Cyber SMART @RPI From the Industry Perspective”

A financial executive with 40 years of entrepreneurial experience across investment management and other facets of financial services, Bill Gordon is now part of Globalis Partners, sourcing differentiated alternative investments for selected family offices and institutions. Leveraging his engineering background, Gordon’s specialty has been with quantitative investment management strategies, instilling discipline and consistency to the process. Prior to Globalis, he founded and served for 15 years as CEO and CCO of Dix Hills Partners, LLC (DHP), a $1.2 billion quantitative fixed income hedge fund executing a global interest rate strategy and selling it back to his partner in 2017. Under his direction, DHP grew from $1 million to $1.2 billion in seven years, and orchestrated a partial sale to both a family office and NYSE-listed Federated Investors Inc. During this period, DHP received several performance awards in fixed income, delivering over 600 basis points of excess return over 15 years. From 1996 to 2001, he served as managing director of the Institutional Division of Mitchell Hutchins Asset Management (PaineWebber) with over $6 billion of AUM growth, which included both quantitative and derivative strategies. Prior to PaineWebber, Gordon served as Merrill Lynch Capital Markets’ director of institutional and prime brokerage marketing. He entered Merrill’s first MBA Institutional Capital Markets program and focused on pension consulting, advising Fortune 500 corporations and their pension funds, endowments, and other non-financial institutions on traditional and alternative investments. He holds a B.S. in chemical engineering from Rensselaer Polytechnic Institute (RPI) and an MBA from Harvard Business School. He holds his Series 3, 7, 63, and 24 securities licenses, and serves as chairman of the Alumni Advisory Board to the Lally School of Management at RPI for Quantitative Finance and Risk Analytics (QFRA). The Board seeks to focus on new financial technologies and data science to assist today’s asset managers, working through the Center for Financial Studies as managers are forced to embrace new financial technologies and manage the associated risks.
Session Speakers

**Steven Silberstein** | President and CEO
Affiliation: FS-ISAC
Title of Talk: “Challenges in Securing the Global Financial Sector and Society From Ever-Increasing Cyber Threats”

Steven Silberstein is president and CEO of FS-ISAC (Financial Services Information Sharing and Analysis Center), the global financial sector’s cybersecurity threat sharing and resiliency consortium with almost 7,000 members. Most recently, he served as the COO of BlueVoyant, a cybersecurity company. Prior, he has held business and technology positions in the global financial services sector, including CEO of the Sheltered Harbor resiliency effort (now an FS-ISAC subsidiary). He was the first chief technology officer of fintech provider SunGard and a managing director of Lehman Brothers. He is currently an adjunct professor at the Fordham University Gabelli School of Business, serves on the Rensselaer Polytechnic Institute Lally School of Management Leadership Council, and is a development partner of the Acumen Fund. He has a B.S. in mathematics from Rensselaer.

**Chris Wojdak** | Director of Technology & Transformation, Financial Services
Affiliation: Capgemini, Canada
Title of Talk: “Cybersecurity Beyond Borders — Where AI, Data Protection, and Governance Can Fit Into the Picture”

Chris Wojdak is an accomplished IT management executive with more than 20 years’ experience working with several major corporations solving complex IT problems and driving a high-performance culture while initiating and managing multiple projects, as well as leading innovation, digital transformation, next-generation analytics, and security. He is well-known in his field for developing and implementing comprehensive IT security architecture and governance as first-class citizens in the solutions to help minimize security risks, optimize security investments, and comply with regulatory requirements. His approach is unique when it comes to implementing modern, secure, and advanced solutions in various industries including financial services, supply chain, and mid-level businesses. His current focus is on helping customers transform through showcasing business value by leveraging machine learning, IoT, and next-generation analytics to help secure, detect, and prevent fraud as customers move to digital channels. In recognition to his contribution, he has received an Informatica Innovation award for next-generation analytics.

Wojdak’s technology career also extends an interest in business and entrepreneurship. He obtained his Bachelor of Technology from McMaster University in Ontario, Canada. He lives in Milton with his wife and kids and enjoys spending his free time with his family. He is also an avid mountain biker who enjoys an occasional round of golf.

Session Chairs

**Chanaka Edirisinghe** | Acting Dean, Kay and Jackson Tai ’72 Chaired Professor of Quantitative Finance
Affiliation: Lally School of Management, Rensselaer Polytechnic Institute

Professor Chanaka Edirisinghe has published extensively in management science and finance, focusing on portfolio optimization, risk management, derivative pricing, and firm fundamental strength analysis, as well as stochastic and quadratic programming theory and practice for large-scale applications. His research appears in journals such as *Management Science, Operations Research, Mathematical Programming, Mathematics of Operations Research, Journal of Financial and Quantitative Analysis, Journal of Banking and Finance,* and *Quantitative Finance,* among others. Emerald Management Reviews awarded the Citation of Excellence for his research in 2009, recognizing his work as one of the top 50 articles in management research in the world.

Edirisinghe was an Erskine Fellow at the College of Business and Economics at University of Canterbury in New Zealand, and, a visiting scholar at several universities. He served as the general chair of the 2016 INFORMS annual conference, which was attended by over 5,000 researchers. In July 2018, he chaired a panel discussion titled, “Potential for the Development of Fintech in Mauritius: Opportunities and Challenges,” in Mauritius, and, in July 2019, he served on the program committee for a panel titled, “Future of Financial Services: Deeper Digitization, Data-driven Decision Intelligence, and New Business Models,” held in Milan, Italy.
Session Chairs

**Brian Clark** | Assistant Professor

**Affiliation:** Lally School of Management, Rensselaer Polytechnic Institute

Brian Clark is an assistant professor of finance at Rensselaer Polytechnic Institute. His research focuses on risk management applications including retail credit modeling, machine learning, operational risk, and stress testing; corporate finance topics such as capital structure and cash holdings; and banking. His work has been published in the *Journal of Banking and Finance*. Clark received his Ph.D. in finance from Rensselaer Polytechnic Institute and is also an intermittent senior financial economist at the Office of the Comptroller of the Currency.

**Malik Magdon-Ismail** | Professor of Computer Science

**Affiliation:** Rensselaer Polytechnic Institute

**Expertise:** Machine Learning

Malik Magdon Ismail obtained a B.S. from Yale in 1993 and a Ph.D. from the CalTech in 1998. He is a professor of computer science at Rensselaer Polytechnic Institute (RPI), where he is a member of the Theory group. His primary research interests are theory and algorithms for machine learning from data, computational finance, and networks. He has numerous refereed papers in machine learning, computational finance, and network analysis, and has co-founded and collaborated with machine-learning and tech-based hedge funds. He is a coauthor of the best-selling textbook *Learning From Data* (2012).

**Mohammed J. Zaki** | Professor, Computer Science Department

**Affiliation:** Rensselaer Polytechnic Institute

Mohammed J. Zaki is a professor of computer science at Rensselaer Polytechnic Institute (RPI). He is also the associate department head and the graduate program director for the Computer Science Department at RPI. He received his Ph.D. in computer science from the University of Rochester in 1998. His research interests focus on developing novel data mining and machine learning techniques, especially for applications in text mining, social networks, bioinformatics, and personal health. He has over 250 publications, including the *Data Mining and Analysis* textbook published by Cambridge University Press in 2014. He is the founding co-chair for the BIOKDD series of workshops. He is currently an associate editor for *Data Mining and Knowledge Discovery*, and he has also served as area editor for *Statistical Analysis and Data Mining*, and an associate editor for *ACM Transactions on Knowledge Discovery from Data*, and *Social Networks and Mining*. He was the program co-chair for *SDM’08, SIGKDD’09, PAKDD’10, RIBM’11, CIKM’12, ICDM’12, IEEE BigData’15*, and *CIKM’18*. He is currently serving on the Board of Directors for ACM SIGKDD. He received the National Science Foundation CAREER Award in 2001 and the Department of Energy Early Career Principal Investigator Award in 2002. He received an HP Innovation Research Award in 2010, 2011, and 2012, and a Google Faculty Research Award in 2011. He is an *ACM Distinguished Scientist* and a fellow of the IEEE. His research is supported in part by NSF, NIH, DOE, IBM, Google, HP, and Nvidia.
Aparna Gupta | Director, Center for Financial Studies
Affiliation: Lally School of Management, Rensselaer Polytechnic Institute

Aparna Gupta is an associate professor of quantitative finance and director of the Center for Financial Studies in the Lally School of Management at Rensselaer Polytechnic Institute (RPI). She was the founding director of the M.S. program in Quantitative Finance and Risk Analytics, and holds a joint appointment in industrial and systems engineering in the School of Engineering at RPI. Gupta was a visiting researcher at the U.S. SEC in Washington D.C. for over two years. Her research interests are in financial decision support, risk management, and financial engineering. She applies mathematical modeling, machine learning, and financial engineering techniques for risk management in both technology-enabled network services, such as energy and renewable energy systems, communication systems, and technology-enabled service contracts, as well as risk management in the interconnected financial institutions and financial markets. She has worked on several U.S. National Science Foundation-funded research projects in financial innovations for risk management. Gupta's research has been published in top quantitative finance and operations research journals, and has been awarded various recognitions, including the 2018 best paper award from the Financial Management Association. She is the author of the book *Risk Management and Simulation*. Gupta is a member of WFA, FMA, INFORMS, GARP and IAQF, and serves on the editorial board of several quantitative finance and analytics journals. She earned her doctorate in 2000 from Stanford University and her B.Sc. and M.Sc. degrees in mathematics from the Indian Institute of Technology, Kanpur, in 1994.

Koushik Kar | Professor and Director, Communication Networks Laboratory
Affiliation: Rensselaer Polytechnic Institute

Koushik Kar is a professor in the Electrical, Computer, and Systems Engineering Department, and the director of the Communications Networks Laboratory at Rensselaer Polytechnic Institute. Professor Kar's primary research interests are in designing, optimizing, and securing communication protocols for the Internet and wireless networks, and their applications to ecommerce and energy markets. His recent research work has also focused on addressing the technological challenges of the Internet of Things (IoT), and operating blockchains on edge networks. He received his B.Tech. in electrical engineering in 1997 from the Indian Institute of Technology, Kanpur, and his M.S. and Ph.D. degrees in electrical and computer engineering from the University of Maryland, College Park, in 1999 and 2002, respectively. He received the Career Award from the National Science Foundation in 2005, and has been on the editorial board and organization committees of several top journals and conferences in the field of communication networks. For more details on Professor Kar, visit https://www.ecse.rpi.edu/~koushik.
T. Ravichandran | Associate Dean for Research and the Irene and Robert Bozzone '55 Distinguished Professor of Management & Technology

Affiliation: Lally School of Management, Rensselaer Polytechnic Institute

T. Ravichandran’s long-term research interests focus on digital strategies of firms and the mechanisms through which digitization is transforming firms, markets, supply networks, and industries. He has published in leading scholarly journals in information systems (Information Systems Research, Journal of Management Information Systems, MIS Quarterly, Decision Sciences, European Journal of Information Systems), strategic management (Organization Science), technology management (IEEE Transaction on Engineering Management), as well as in leading practitioner journals (Communications of the ACM). His research has won several awards including the Best Information Systems Publication in 2010 (Association of Information Systems); Best Published Paper Award, 2010 (Information Systems Research); Best Paper Award, Software Technology Track (HICSS, 2010); Best Paper Award Honorable Mention (IEEE Transactions on Engineering Management, 2007); Best Academic Paper Award (Second Supply Chain Management Symposium, McMaster University, 2004); Best Paper Award (OCIS Division, Academy of Management, 2001).

He currently serves as a senior editor of MIS Quarterly and as a department editor for IEEE Transactions on Engineering Management. He recently completed a four-year term as an associate editor of MIS Quarterly and a three-year term as an associate editor of Information Systems Research.

T. Ravichandran led the effort to design, launch, and scale two new graduate programs, the M.S. in Business Analytics and the M.S. in Supply Chain Management. He founded and directs the Rensselaer Center for Supply Networks and Analytics. Prior to joining Rensselaer, he had extensive business experience having served as a consultant to the Reliance Group, as the assistant director of National Productivity Council, India, and as a production manager in Flakt AB (now Asea Brown Boweri). He has also been a successful entrepreneur; he started, built, and ran an IT services firm.