NEW YORK UNIVERSITY

SERENDIPITY 2024

NYU Abu Dhabi
December 16-17, 2024

NYU NEW YORK
NYU ABU DHABI
NYU SHANGHAI

INTRODUCTION

The inaugural Serendipity Research Confluence, initiated by Nasir Memon from NYU Shanghai, will take place at the NYU Abu Dhabi campus on December 16-17, 2024. This two-day event aims to foster research collaboration among faculty from NYU's three campuses—New York, Abu Dhabi, and Shanghai—highlighting the growing fields of artificial intelligence (AI) and machine learning (ML) in science and engineering.

Participants will engage in intimate, focused discussions designed to build networks of shared interests and collaborate on drafting white papers outlining specific research projects. These initiatives will later be positioned for potential seed funding, marking a significant step toward advancing research in these critical areas.

SPONSORS

Nasir Memon

Dean of Computer Science, Data Science, and Engineering, NYU Shanghai

Professor of Computer Science and Engineering, NYU Tandon

Ozgur Sinanoglu

Associate Dean for Faculty Development, NYU Abu Dhabi

Director, Center for Cyber Security

Professor of Computer Engineering, NYU Abu Dhabi

Keith Ross

Professor of Computer Science, NYU Abu Dhabi

CONTRIBUTORS

Martín Farach-Colton

Department Chair, Computer Science and Engineering, NYU Tandon

Leonard J. Shustek Professor of Computer Science, NYU Tandon

Magued Iskander

Department Chair & Professor, Civil and Urban Engineering, NYU Tandon

Ramesh Karri

Professor, Electrical and Computer Engineering and the NYU Center for Cybersecurity (CCS), NYU Tandon

Rastislav Levicky

Interim Chair & Professor, Chemical and Biomolecular Engineering, NYU Tandon

Speaker of the Faculty, NYU Tandon

Oded Nov

Department Chair, Technology Management and Innovation, NYU Tandon

Morton L. Topfer Professor of Technology Management, NYU Tandon

Maurizio Porfiri

Director, Center for Urban Science + Progress, NYU Tandon

Institute Professor, Mechanical and Aerospace Engineering, NYU Tandon

Nizar Touzi

Department Chair & Professor, Finance and Risk Engineering, NYU Tandon

PROGRAM

Day 1: Monday, December 16, 2024

9:00 – 9:30	**Registration and Welcome Coffee**
9:30 – 9:45	**Opening Remarks** Welcome and Introduction *Speakers: Nasir Memon, Ozgur Sinanoglu*
9:45 – 12:15	**Speed Dating Session** Quick chats to share ideas and find potential collaborators
12:15 – 13:15	**Lunch**
13:15 – 15:00	**Group Research Discussions** Small group discussions based on shared research interests to collaboratively draft initial project ideas
15:00 – 20:00	**Desert Safari and Group Dinner** A guided desert safari and dinner gathering

Day 2: Tuesday, December 17, 2024

9:00 – 9:30	**Breakfast**
9:30 – 12:00	**Group Presentations** Groups will present their project ideas and preliminary white paper drafts, followed by feedback and discussion
12:00 – 13:00	**Lunch**
13:00 – 17:00	**Abu Dhabi Tour and Closing Remarks**
17:00 – 20:00	**Free Time and Dinner on Your Own**

PARTICIPANTS

New York Campus

Emily Black

Assistant Professor, Computer Science and Engineering

Algorithmic Fairness, Anti-Discrimination, Machine Learning Policy, Deep Learning, Responsible AI

Chen Feng

Institute Associate Professor, Civil and Urban Engineering

Robot Vision and Machine Learning, Photogrammetry and Remote Sensing, Augmented and Virtual Reality, with Applications in Civil and Mechanical Engineering

Siddharth Garg

Institute Associate Professor, Electrical and Computer Engineering

Machine Learning, Cybersecurity, Computer Hardware Design

Chinmay Hegde

Associate Professor, Computer Science and Engineering and Electrical and Computer Engineering

Machine Learning, Algorithms, Big Data, Signal and Image Processing

Dharik Mallapragada

Assistant Professor, Chemical and Biomolecular Engineering

Energy and Process Systems Engineering, Optimization Modeling, Low-Carbon Energy Technologies, Life Cycle and Techno-Economic Assessment

Yuki Miura

Assistant Professor, Mechanical and Aerospace Engineering and the Center for Urban Science + Progress

Climate Risk Assessment and Management, Urban Resilience and Adaptation, Intersection of Engineering, Social Science, and Economics, Data-Driven Modeling and Optimization

Miguel Modestino

Director, Sustainable Engineering Initiative

Donald F. Othmer Associate Professor of Chemical Engineering

Chemical Manufacturing, Decarbonization, Energy Storage and Conversion, Electrochemistry, Reaction Engineering, Polymers, Sustainability

Chris Musco

Assistant Professor, Computer Science and Engineering

Scalable Machine Learning, Foundations of Data Science, Numerical Linear Algebra, Theory of Algorithms, Randomized Algorithms, Sketching and Streaming

Qi Sun

Assistant Professor, Computer Science and Engineering and the Center for Urban Science + Progress

Virtual/Augmented Reality, Computer Graphics, Computer Vision, Computational Perception

Eugene Vinitsky

Assistant Professor, Civil and Urban Engineering

Reinforcement Learning, Autonomous Vehicles, Traffic Control

Renyuan Xu

Assistant Professor, Finance and Risk Engineering

Stochastic Analysis, Machine Learning Theory, Mathematical Finance

Saiqian Zhang

Assistant Professor, Electrical and Computer Engineering and Computer Science

Efficient AI Algorithm, Efficient AR/VR Computing, Neural Network Accelerator Design

PARTICIPANTS

Abu Dhabi Campus

Tuka Waddah Alhanai
Assistant Professor of Computer Engineering
Computer-Human Intelligence

Bedoor AlShebli
Assistant Professor of Computational Social Science
Computational Social Science, Data Science, Big Data, Science of Science

Riyadh Baghdadi
Assistant Professor of Computer Science
Compilers, Programming Languages, Deep Learning, Artificial Intelligence, High Performance Computing

Djellel Difallah
Assistant Professor of Computer Science
Crowdsourcing, Machine Learning, Knowledge Management and Discovery

Yi Fang
Associate Professor of Electrical and Computer Engineering
3D Computer Vision, Multimedia Processing, Machine Learning, Deep Learning

Kinga Makovi
Assistant Professor of Social Research and Public Policy
Social Networks, Political Sociology, Health, Online Experiments, Computational Methods

Minsu Park
Assistant Professor of Social Research and Public Policy
Culture, Consumption, Social Networks, Computational Social Science, Human-centered Data Science

Keith Ross
Professor of Computer Science
Deep Reinforcement Learning, Deep Learning, Artificial Intelligence

Hanan Salam
Assistant Professor of Computer Science
Artificial Intelligence for Mental Healthcare, Human-Machine Interaction (HMI), Social Robotics, Computer Vision, Personalized Machine Learning, Affective Computing

Muhammad Shafique
Professor of Computer Engineering
Brain-Inspired Computing, Embedded Machine Learning and AI, Energy-Efficient Computing, Robust Computing, Fault-Tolerant and Secure Hardware, MPSoCs, FPGAs, Embedded Systems for CPS & IoT

Farah Emad Shamout
Assistant Professor of Computer Engineering
Machine Learning, Data Science, Applications in Healthcare

Sandra Siby
Assistant Professor of Computer Engineering
Cybersecurity, Privacy

Hardware Security

Ozgur Sinanoglu
Associate Dean for Faculty Development Director, Center for Cyber Security Professor of Computer Engineering

Rita Leal Sousa
Associate Professor of Civil and Urban Engineering
Tunneling Automation, Natural Threat Risk Assessment, Soil Erosion, Stochastic Modeling

Yasir Zaki
Assistant Professor of Computer Science
Communication Networks, Wireless Networks, Cellular Communication, Congestion Control Protocols, Enhancing Web in Developing Regions

Cynthia Zeng
Assistant Professor of Technology, Operations and Statistics
Developing Machine Learning and Optimization Algorithms for Climate Change Adaptation and Sustainability

PARTICIPANTS

Shanghai Campus

Zhibin Chen

Area Head of Engineering

Assistant Professor of Engineering

Transportation Network Modeling and Optimization, Transportation Economics, Intelligent Transportation System, Emerging Vehicle Technologies

Chenghe Guan

Assistant Professor of Urban Science and Policy

Director of the Shanghai Key Laboratory of Urban Design and Urban Science

Changing Urban Geographical Processes That Shape Cities, Towns, and Landscapes, Urban Design, Land Use, and Planning Policy, Urban Simulation, Cellular Automata Urban Growth Modeling, Spatial Analysis

Li Guo

Area Head of Data Science

Associate Professor of Practice in Data Science

Deep Neural Networks, Natural Language Processing, Computer Vision, Machine Learning Models

Jin Han

Assistant Professor of Global Public Health

Digital Mental Health, Migrant Health, Culture and Health, Suicide Prevention

Mathieu Laurière

Assistant Professor of Mathematics and Data Science

Computational Methods, Optimal Control, Game Theory, Partial Differential Equations, Stochastic Analysis, Deep Learning, Reinforcement Learning

Shuyang Ling

Assistant Professor of Data Science

Optimization Theory and Algorithm, High-Dimensional Statistics and Probability, Computational Harmonic Analysis, Theory of Machine Learning

Nasir Memon

Dean of Computer Science, Data Science, and Engineering

Professor of Computer Science and Engineering

Media Forensics, Biometrics, Authentication, Network Security, Data Compression, Cybersecurity

Wilson Tam

Professor of Practice in Computer Science

Natural Language Processing, Recommender Systems, Automatic Speech Recognition, Machine Learning

Qiaoyu Tan

Assistant Professor of Computer Science

Graph Machine Learning, Foundation Model, Large Language Model, Multimodal Learning, Bioinformatics and Healthcare

Shengjie Wang

Assistant Professor of Computer Science

Machine Learning, Deep Learning, AI for Science, Optimization, Human-Centered AI

Zhaonan Wang

Assistant Professor of Urban Studies and Computer Science

The Interdisciplinary Area of AI-Urban Science

Gene Wen

Visiting Professor of Engineering

Multimedia Communication over Challenging Networks and Computational Photography

Hongyi Wen

Assistant Professor of Computer Science

Recommender System, Personalization in Education and Health, Human-Computer Interaction

Chen Zhao

Assistant Professor of Computer Science

Natural Language Processing, Human-Computer Interaction, Machine Learning

PARTICIPANTS

Emily Black
Assistant Professor, Computer Science and Engineering, NYU Tandon

Emily Black is an Assistant Professor of Computer Science and Engineering at New York University. Her research concerns fairness and accountability in AI systems. In other words, she creates methods to determine whether AI systems will cause harm to the public, studies the equity impacts of AI systems in high-stakes settings, such as the government, and connects her own and related research to the legal and policy worlds to help better regulate AI systems. Professor Black's work is interdisciplinary as she aims to prevent harm from AI systems used in a variety of contexts: she works with lawyers, accountants, civil society advocates, and others to try to prevent algorithmic harm in practice.

Chen Feng
Institute Associate Professor, Civil and Urban Engineering, NYU Tandon

Chen Feng is an Associate Professor at NYU, specializing in active and collaborative robot perception and learning, with research inspired by construction, manufacturing, and transportation. Prior to NYU, he worked as a research scientist at Mitsubishi Electric Research Labs, focusing on self-driving cars and robotics, where he developed patented algorithms. Chen has published in top AI and Robotics venues like CVPR and ICRA, and serves as an associate editor for IEEE Robotics and Automation Letters. Chen received the NSF CAREER Award in 2023.

Siddharth Garg
Institute Associate Professor, Electrical and Computer Engineering, NYU Tandon

Siddharth Garg is the Institute Associate Professor of Electrical and Computer Engineering at NYU Tandon, leading the EnSuRe Research group. Previously, he was an Assistant Professor at both NYU (2014–2020) and the University of Waterloo (2010–2014). His research focuses on machine learning, cybersecurity, and computer hardware design. Siddharth was named one of Popular Science's "Brilliant 10" in 2016 and has received multiple accolades, including the NSF CAREER Award and several prestigious paper awards. He actively contributes to top conferences and journals in computer engineering and hardware.

Chinmay Hegde
**Associate Professor, Computer Science and Engineering and
Electrical and Computer Engineering, NYU Tandon**

Chinmay Hegde is an Associate Professor with joint appointments in the CSE and ECE Departments at NYU Tandon. His research focuses on developing fast, principled, and robust algorithms for machine learning, with applications in imaging, computer vision, materials design, and transportation. He is a member of the Visualization, Imaging, and Data Analysis (VIDA) Center and the AI Institute for Resilient Agriculture (AIIRA), which focuses on AI-driven solutions for food security. Before joining NYU, he was an assistant professor at Iowa State University, where he received the Black and Veatch Faculty Fellowship.

PARTICIPANTS

Dharik Mallapragada
Assistant Professor, Chemical and Biomolecular Engineering, NYU Tandon

Dharik Mallapragada is an Assistant Professor in the Chemical and Biomolecular Engineering department at NYU. His research focuses on developing advanced decision-support tools for planning and operating resilient, low-carbon energy systems and integrating novel energy technologies. Before joining NYU in January 2024, he was a Principal Research Scientist at the MIT Energy Initiative, where he began his academic research career. Prior to that, Dharik spent nearly five years in the energy industry, working on sustainability-focused research projects. His work aims to accelerate the transition to a low-carbon economy through innovative engineering solutions.

Yuki Miura
Assistant Professor, Mechanical and Aerospace Engineering and the Center for Urban Science + Progress, NYU Tandon

Yuki Miura is an Assistant Professor of Mechanical and Aerospace Engineering and the Center for Urban Science and Progress. She is also a faculty advisory board member at the Volatility and Risk Institute at NYU Stern School of Business. Previously, she worked at Morgan Stanley in climate risk management and quantitative strategy. Her research combines engineering, climate science, finance, and social sciences to develop data-driven strategies for mitigating natural hazards and building resilient cities. She has collaborated with the National Center for Atmospheric Research and New York State/City governments. Her work has been published in leading journals and featured in The New Yorker.

Miguel Modestino
Director, Sustainable Engineering Initiative, NYU Tandon
Donald F. Othmer Associate Professor of Chemical Engineering, NYU Tandon

Miguel A. Modestino is the Director of the Sustainable Engineering Initiative and the Donald F. Othmer Associate Professor of Chemical Engineering at NYU. Miguel has received numerous honors, including the Global Change Award from the H&M Foundation (2016), the MIT Technology Review Innovators Under 35 Award (2017 & 2020), the ACS Petroleum Research Fund Doctoral New Investigator Award (2018), the NSF CAREER Award (2019), the NYU Tandon Junior Faculty Research Award (2020), and the TED Idea Search Latin America (2021).

Chris Musco
Assistant Professor, Computer Science and Engineering , NYU Tandon

Christopher Musco is an Assistant Professor in the Computer Science and Engineering department at NYU's Tandon School of Engineering. Christopher's research focuses on the algorithmic foundations of data science and machine learning. He studies methods for efficiently processing and understanding data, often working at the intersection of theoretical computer science, numerical linear algebra, and optimization.

PARTICIPANTS

Qi Sun
Assistant Professor, Computer Science and Engineering and the Center for Urban Science + Progress, NYU Tandon

Qi Sun is an Assistant Professor at NYU. Before joining NYU, he was a research scientist at Adobe Research. His research interests lie in VR/AR, perceptual computer graphics, display, and computational cognition. He is a recipient of the IEEE Virtual Reality Best Dissertation Award. With colleagues, his research has been recognized as several best paper and honorable mention awards at ACM SIGGRAPH, IEEE ISMAR, IEEE VR, IEEE VIS, and ACM SAP.

Eugene Vinitsky
Assistant Professor, Civil and Urban Engineering, NYU Tandon

Eugene Vinitsky is a Professor of Civil and Urban Engineering at NYU and a member of the C2SMARTER consortium. His primary research interest is figuring out how to make developing multi-agent controllers, planners, and intelligence as easy as possible by developing new learning algorithms, software, and tools. He looks for applications of these techniques in civil engineering problems and autonomy.

Renyuan Xu
Assistant Professor, Finance and Risk Engineering , NYU Tandon

Renyuan Xu is an Assistant Professor in the Department of Finance and Risk Engineering at NYU. Previously, she was an Assistant Professor at USC's Daniel J. Epstein Department of Industrial and Systems Engineering and a Hooke Research Fellow at the University of Oxford. Her research spans stochastic analysis, machine learning theory, and mathematical finance, with a focus on high-stakes decision-making in large-scale systems. She also explores the mathematical foundations of generative AI for stress testing and risk management. Renyuan has received the NSF CAREER Award (2024), SIAM Early Career Award (2023), and JP Morgan AI Faculty Research Award (2022).

Saiqian Zhang
Assistant Professor, Electrical and Computer Engineering and Computer Science, NYU Tandon

Saiqian Zhang is an Assistant Professor in the Electrical and Computer Engineering department at NYU Tandon School of Engineering and the Computer Science department at the Courant Institute of Mathematical Sciences. Previously, he was a research scientist at Meta Reality Labs, focusing on algorithm and hardware co-design for AR/VR applications. His research interests include efficient deep neural network implementation, reinforcement learning, and hardware system design. Dr. Zhang's work has been published in top conferences like ASPLOS, NeurIPS, and AAAI, and he has received the NSERC Postgraduate Scholarship and a Best Paper Award at IEEE ICC.

PARTICIPANTS

Tuka Waddah Alhanai
Assistant Professor of Computer Engineering, NYU Abu Dhabi

Tuka Alhanai is an Assistant Professor of Computer Engineering at NYU Abu Dhabi. She is an engineer, scientist, and researcher working at the intersection of human experience and computational systems. Her research develops systems to quantify subjective aspects, such as the traits of successful teams, elements of marketable ideas, and how profile images influence perceptions of competence. Her work has been featured in The Wall Street Journal and Wired, and she frequently publishes in top-tier venues like AAAI, ACL, and IEEE. Alhanai has received the MIT Technology Review's Innovators Under 35 MENA Award (2018) and the UAE Government Excellence Award (2019).

Bedoor AlShebli
Assistant Professor of Computational Social Science, NYU Abu Dhabi

Bedoor AlShebli is an Assistant Professor of Computational Social Science at NYU Abu Dhabi. Her research focuses on using data science to explore social phenomena, particularly in the Science of Science. Bedoor investigates the social and economic benefits of diversity and the dynamics of social interaction, applying data science, big data, and machine learning techniques. Her work has been published in major journals, including Nature Human Behavior, Nature Communications, and Science Advances, contributing to computational social science and machine learning.

Riyadh Baghdadi
Assistant Professor of Computer Science, NYU Abu Dhabi

Riyadh Baghdadi is an Assistant Professor of Computer Science at NYU Abu Dhabi and a Global Network Assistant Professor at NYU Tandon School of Engineering. He also serves as a Research Affiliate at MIT. His research focuses on the intersection of compilers and applied machine learning, specifically developing compilers that optimize high-level code to generate efficient code using machine learning. He also works on techniques to accelerate deep learning training and inference, enabling the use of advanced models on resource-constrained platforms like smartphones and driverless cars. Riyadh previously did a postdoc at MIT where he developed the Tiramisu compiler for deep learning, image processing and scientific computing.

Djellel Difallah
Assistant Professor of Computer Science, NYU Abu Dhabi

Djellel Difallah is an Assistant Professor at NYU Abu Dhabi. He earned his Ph.D. from the University of Fribourg in 2015, working at the eXascale Infolab. Djellel has held positions as a Faculty Fellow at NYU's Center for Data Science and worked with the Wikimedia Foundation, Schlumberger, Microsoft Research, and Google Summer of Code. His research focuses on crowdsourcing, human-computation, machine learning, and knowledge discovery. Djellel aims to develop crowdsourcing systems that enhance AI models while positively impacting crowd participants and society.

PARTICIPANTS

Yi Fang
Associate Professor of Electrical and Computer Engineering, NYU Abu Dhabi

Yi Fang is an Associate Professor of Electrical and Computer Engineering at NYU Abu Dhabi. Before joining NYUAD, he worked as a research scientist at Siemens and Riverain Technologies, and as a senior staff scientist at Vanderbilt University. His current research focuses on large-scale visual computing, deep visual learning, and cross-domain models, with applications in engineering, social science, medicine, and biology. He co-founded the NYU Multimedia and Visual Computing Lab, fostering collaboration between the New York and Abu Dhabi campuses to address multimedia and visual data processing challenges.

Kinga Makovi
Assistant Professor of Social Research and Public Policy, NYU Abu Dhabi

Kinga Makovi is an Assistant Professor at NYU Abu Dhabi and a co-Principal Investigator at the Center for Interacting Urban Networks (CITIES). She holds a Ph.D. in Sociology from Columbia University and an MS in Mathematical Economics from Corvinus University of Budapest. Makovi's research focuses on the intersection of network science, social determinants of health, and environmental behavior, utilizing computational and experimental methods. Her work has been funded by the National Science Foundation and published in Sociological Science, Scientific Reports, and PLoS ONE.

Minsu Park
Assistant Professor of Social Research and Public Policy, NYU Abu Dhabi

Minsu Park works in computational social science with a specialization in the consumption of culture, production of creative work, and social networks. His current research focuses on how informational and normative cues interact with an individual's preference to make a certain decision and how cultural preferences change over time—individually and globally. He mainly uses computational techniques and various digital traces (from large-scale social media and streaming data to physiological signals captured from a custom smartwatch app) to model and understand cultural consumption and production behaviors. His research inhabits an interdisciplinary nexus between data science and social science, simultaneously drawing on and contributing to both.

Hanan Salam
Assistant Professor of Computer Science, NYU Abu Dhabi

Hanan Salam is an Assistant Professor of Computer Science at NYU Abu Dhabi and director of the Social Machines & Robotics Lab (SMART). She co-founded Women in AI, a non-profit dedicated to closing the gender gap in AI through education and research. Previously, she was an R&D Engineer in AI and Robotics at A.I.Mergence, specializing in intelligent autonomous robots for home security. She also worked as an AI consultant and part-time lecturer at various French universities. Her research interests include AI for mental healthcare, Human-Machine Interaction, social robotics, and affective computing. Salam is a strong advocate for technology for the common good and women's empowerment.

PARTICIPANTS

Muhammad Shafique
Professor of Computer Engineering, NYU Abu Dhabi

Muhammad Shafique is a Full Professor of Computer Engineering at NYU Abu Dhabi. He earned his Ph.D. from KIT Germany, where he led a research group and conducted impactful R&D activities. Prior to NYUAD, he was a Professor at Technische Universität Wien. His research focuses on brain-inspired computing, AI hardware, energy-efficient systems, robust computing, and hardware security. Dr. Shafique has authored over 250 papers, 6 books, and holds one U.S. patent. He has received numerous accolades, including the ACM/SIGDA Outstanding New Faculty Award, AI 2000 Chip Technology Most Influential Scholar Award, and several best paper awards. He is a senior member of IEEE and IEEE Signal Processing Society (SPS), and a member of the ACM, SIGARCH, SIGDA, SIGBED, and HIPEAC.

Farah Emad Shamout
Assistant Professor of Computer Engineering, NYU Abu Dhabi

Farah Shamout is an Assistant Professor of Computer Engineering at NYU Abu Dhabi, where she leads the Clinical Artificial Intelligence Lab. She is also an Associated Faculty at NYU Tandon and an Affiliated Faculty at NYU Langone Health. Dr. Shamout's research focuses on developing machine learning systems using real-world data, such as electronic health records and medical imaging, for computational precision health. Her interests include multi-modal fusion and augmenting decision-making in clinical settings. Prior to her tenure-track role, she was an Assistant Professor Emerging Scholar at NYU, receiving the Campus Life Faculty Leadership Award in 2021.

Sandra Siby
Assistant Professor of Computer Engineering, NYU Abu Dhabi

Sandra Siby is an Assistant Professor of Computer Engineering at NYU Abu Dhabi. Sandra's research focuses on security and privacy, aiming to empower individuals with better control over their privacy and protection from digital threats. Her current work explores security mechanisms for web, IoT, and emerging technologies, as well as deploying trusted, private machine learning on edge devices. Before NYUAD, Sandra was a postdoctoral researcher at Imperial College London and worked as a research engineer and technology analyst.

Rita Leal Sousa
Associate Professor of Civil and Urban Engineering, NYU Abu Dhabi

Rita Sousa is an Associate Professor of Civil Engineering at New York University in Abu Dhabi. She received her PhD in Geotechnical and Geoenvironmental Engineering from the Massachusetts Institute of Technology (MIT). Sousa is an elected Executive Board Member and the Treasurer of the American Rock Mechanics Association (ARMA) Board of Directors. She is actively involved in several important committees in the field, like the Water Quality & Quantity Standing Committee at the New Jersey Department of Environmental Protection Science Advisory Board and the ARMA Technical Committee on Tunneling. She has also been actively involved in organizing symposiums, such as the ARMA 2021: 55th US Rock Mechanics/Geomechanics Symposium.

PARTICIPANTS

Yasir Zaki
Assistant Professor of Computer Science, NYU Abu Dhabi

Yasir Zaki is an Assistant Professor of Computer Science at NYU Abu Dhabi and a Global Network Assistant Professor at NYU's Courant Institute. Before joining NYUAD in 2013, he worked as a research associate at the Communication Networks group (ComNets) at the University of Bremen, contributing to various European and industrial projects. Dr. Zaki has published over 50 papers in cellular communications and wireless networks. His research focuses on future mobile communications, transport congestion control protocols, and improving internet and network performance, particularly in developing regions. His work aims to enhance wireless and cellular communication technologies globally.

Cynthia Zeng
Assistant Professor of Technology, Operations and Statistics, NYU Abu Dhabi

Cynthia Zeng is an Assistant Professor at the NYU Stern School of Business in Abu Dhabi, and a research affiliate of the MIT Sloan School of Management. Cynthia completed her PhD in Operations Research from Massachusetts Institute of Technology (MIT). Cynthia's research addresses the challenges of climate adaptation and sustainable development through technological innovation. She specializes in developing artificial intelligence solutions to forecast and manage extreme weather events. Her PhD thesis, titled "Multimodal Machine Learning for Climate Adaptation", includes selected works on hurricanes prediction, flood prediction, near-term wind prediction, and flood insurance pricing.

Zhibin Chen
Area Head of Engineering, NYU Shanghai
Assistant Professor of Engineering, NYU Shanghai

Zhibin Chen is the Area Head of Engineering and Assistant Professor of Engineering at NYU Shanghai and a Global Network Assistant Professor at the Tandon School of Engineering at NYU. Prior to this appointment, he was a research fellow in the Department of Civil and Environmental Engineering at the University of Michigan, Ann Arbor. Dr. Chen's research goal is to identify, develop, and implement emerging technologies to achieve a safer, more efficient, and environment-friendly transportation system. He was the recipient of the Stella Dafermos Best Paper Award and the Ryuichi Kitamura Paper Award at the 95th TRB Annual Meeting.

Chenghe Guan
Assistant Professor of Urban Science and Policy, NYU Shanghai
Director of the Shanghai Key Laboratory of Urban Design and Urban Science

Chenghe Guan is an Assistant Professor of Urban Science and Policy at NYU Shanghai, Global Network Assistant Professor, and PhD Advisor at NYU Wagner. He co-directs the Shanghai Key Laboratory of Urban Design and Urban Science (LOUD). Dr. Guan is affiliated with Harvard, East China Normal University, and NYU Tandon, and serves as a senior research consultant to the University of Oxford. His research focuses on spatial analytics of urban morphology and green space planning, with a focus on AI-enhanced urban sensing and climate-adaptive cities. His work has been published in journals like Nature Communications, Landscape and Urban Planning, and Environment and Planning.

PARTICIPANTS

Li Guo

Area Head of Data Science, NYU Shanghai
Associate Professor of Practice in Data Science, NYU Shanghai

Li Guo is the Area Head of Data Science and an Associate Professor of Practice at NYU Shanghai. Her expertise lies in statistical analysis and its application to deep neural networks, focusing on natural language processing and computer vision. Guo is also skilled in machine learning models, such as generalized linear models, logistic regression, and cluster analysis. Before joining NYU Shanghai, she worked as a data scientist at Alibaba Group and as a statistician at Kelley Blue Book. Her research has been published in the Australian & New Zealand Journal of Statistics and the American Journal of Cosmetic Surgery.

Jin Han

Assistant Professor of Global Public Health, NYU Shanghai

Jin Han is an Assistant Professor of Global Public Health and a faculty affiliate at the Center for Global Health Equity at NYU Shanghai. Before joining NYU, she was a Research Fellow at the Black Dog Institute, University of New South Wales, Australia. Jin's research explores the use of digital technology, such as smartphone apps and social media, to predict and prevent mental disorders, with a focus on young people and migrants. Her multidisciplinary work includes epidemiologic surveys, clinical trials, and ecological momentary assessments. She is supported by grants from the Australian National Health and Medical Research Council and serves as an Associate Editor for several leading journals.

Mathieu Laurière

Assistant Professor of Mathematics and Data Science, NYU Shanghai

Mathieu Laurière is an Assistant Professor of Mathematics and Data Science at NYU Shanghai. Before joining, he was a Postdoctoral Research Associate at Princeton University in the Operations Research and Financial Engineering department. Previously, he was a Postdoctoral Fellow at the NYU-ECNU Institute of Mathematical Sciences and most recently a Visiting Faculty Researcher at Google Brain in Paris.

Shuyang Ling

Assistant Professor of Data Science, NYU Shanghai

Shuyang Ling is an Assistant Professor of Data Science at NYU Shanghai and a Global Network Assistant Professor at NYU's Tandon School of Engineering. Before joining NYU Shanghai, he was a Courant Instructor/Assistant Professor at the Courant Institute of Mathematics and Center for Data Science from 2017-2019. His research focuses on the mathematics of data science, particularly in addressing inverse problems from engineering applications and extracting information from large-scale, heterogeneous datasets. His work spans various fields, including optimization, probability, statistics, computational harmonic analysis, and numerical linear algebra.

PARTICIPANTS

Wilson Tam
Professor of Practice in Computer Science, NYU Shanghai

Yik-Cheung (Wilson) Tam is a Professor of Practice in Computer Science at NYU Shanghai. From 2017 to 2020, he was a principal NLP scientist and manager at WeChat AI, focusing on Xiaowei, a virtual personal assistant, and music recommendation systems. From 2015 to 2017, he worked at Microsoft (Suzhou) as a senior NLP scientist and manager, contributing to Cortana's natural language understanding. Wilson has six years of research experience in the U.S., working with SRI International and Nuance Communications Inc. His expertise lies in natural language processing and AI-driven personal assistants.

Qiaoyu Tan
Assistant Professor of Computer Science, NYU Shanghai

Qiaoyu Tan is an Assistant Professor of Computer Science at NYU Shanghai. Before his current position, he worked as a research intern at Alibaba Damo Academy and Samsung Research America. His research interests span machine learning and data mining, with a focus on graph machine learning, foundation model development, multimodal learning, trustworthy AI, and applications in bioinformatics and healthcare.

Shengjie Wang
Assistant Professor of Computer Science, NYU Shanghai

Shengjie Wang is an Assistant Professor of Computer Science at NYU Shanghai. His research interests include machine learning, deep learning, AI for science, optimization, and human-centered AI. Shengjie obtained his Ph.D. degree from the CSE department at the University of Washington under the supervision of Jeffrey Bilmes. Before joining NYU-SH, Shengjie Wang worked at Bytedance Seattle as a research scientist, focusing on recommendation systems and AI for science.

Zhaonan Wang
Assistant Professor of Urban Studies and Computer Science, NYU Shanghai

Zhaonan Wang is an Assistant Professor of Urban Studies and Computer Science at NYU Shanghai. His research interests lie in the interdisciplinary area of AI-urban science; he has published over 20 papers on top-tier AI/data mining conferences and journals. Zhaonan has just finished postdoc at University of Illinois Urbana-Champaign, where he led the Geospatial AI team at CyberGIS Center.

PARTICIPANTS

Gene Wen
Visiting Professor of Engineering, NYU Shanghai

Gene Wen is a Visiting Professor of Engineering at NYU Shanghai. He is an IEEE Fellow and a recipient of the National Natural Science Foundation of China's Outstanding Young Scientist Award. He has made significant contributions to multimedia communication and networking, with several patents and proposals adopted by international standards. As an angel investor, he supported high-tech companies later acquired by firms like Facebook. Returning to Tsinghua in 2008 through the Hundred Talent Program, he has led numerous national and corporate research projects, including broadcast-quality VR/AR systems. Products embodying technologies he invented and developed under his leadership are currently serving over 2 billion users worldwide. He has served on editorial boards of many prestigious journals and holds 40 U.S. patents.

Hongyi Wen
Assistant Professor of Computer Science, NYU Shanghai

Hongyi Wen is an Assistant Professor of Computer Science at NYU Shanghai. He holds a PhD in Information Science from Cornell University, where he was fortunate to work with Professor Deborah Estrin. His research focuses on Recommender Systems, HCI and personalization in real-world applications, where he aims to develop human-centered AI for improving the long-term values of personalizations.

Chen Zhao
Assistant Professor of Computer Science, NYU Shanghai

Chen Zhao is an Assistant Professor of Computer Science at NYU Shanghai and is affiliated with the Center for Data Science at New York University. He completed his postdoctoral research at NYU under the mentorship of Prof. Kyunghyun Cho and Prof. He He. Professor Zhao's research focuses on natural language processing, aiming to enhance intelligent agents' reasoning capabilities and ensure they are reliable and robust in real-world applications.

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The Center for Cyber Security (CCS) at New York University Abu Dhabi aims to establish a world class cyber security center by partnering with key local universities, industry and government agencies in order to facilitate cyber security research, education and practice in the United Arab Emirates and more generally in the GCC region. The center will act as a catalyst to improve cyber security in the UAE and enhance its regional and global competitiveness in this field. CCS is affiliated with Center for Cyber Security New York.

Contact: ccsad@nyu.edu

Shanghai Frontiers Science Center of Artificial Intelligence and Deep Learning

The newly founded Shanghai Frontiers Science Center of Artificial Intelligence and Deep Learning at NYU Shanghai focuses deeply on the field of artificial intelligence and deep learning and fully explores the mathematical foundation behind artificial intelligence by intersecting with mathematics, physics, chemistry, and other disciplines. By bringing together researchers across various disciplines at NYU Shanghai, the center aims to develop the next generation of interpretable, adaptable, and "human-centered" artificial intelligence learning algorithms and applies deep learning to fields such as biochemistry, neuroscience, and smart city engineering to achieve major breakthroughs.

Contact: shanghai.sfsc@nyu.edu

DIRECTION

New York University Abu Dhabi

PO Box 129188, Saadiyat Island, Abu Dhabi, United Arab Emirates