

COMPUTER SCIENCE COLLOQUIUM

Bridging Academia and Industry: A Personal Journey to Impactful Solutions

SPEAKER Prof. Xue (Steve) Liu

Professor School of Computer Science, McGill University DATE 22 Jul, 2025 (Tue)
TIME 10:00 AM - 11:00 AM

VENUE G5214, 5th Floor, Green Zone, Yeung Kin Man Academic Building, City University of Hong Kong, 83 Tat Chee Avenue, Kowloon Tong

ABSTRACT

Applied computing research holds immense importance in computer science because it bridges theory and practical applications. It translates cutting-edge computing technologies into tangible solutions that address real-world challenges. In this talk, I will share my experience and lessons learned as an applied computing researcher who has worked in both academia and industry. I will embark on a personal journey - from my decision to transition from a mathematics student to a Ph.D. in computer science, followed by becoming a university professor, and then venture into the dynamic landscapes of startups, entrepreneurship, and corporate R&D, exploring diverse areas including computing systems, networking, and Al/machine learning.

Beyond sharing my experiences, I will discuss the core differences between academic research and industry research, and their pros and cons. Finally, I'll argue why closer collaboration between academia and industry is crucial for the future success of computing, and discuss actionable ways to carry out the collaboration.

BIOGRAPHY

Dr. Xue (Steve) Liu is a Full Professor in the School of Computer Science and a William Dawson Chair Professor at McGill University. He is the Associate VP of Research and Professor of Machine Learning and Professor of Computer Science at MBZUAI. He is also a Professor (Courtesy Appointment) of Mathematics and Statistics at McGill University.

From 2019 to 2024, he served as VP R&D, Chief Scientist, and Co-Director of the Samsung Al Center Montreal, where he led the R&D of Al innovations in multiple areas, including telecommunications, mobile computing, IoT, and robotics. He was also the Chief Scientist at Tinder Inc., leading the research and innovation for the world's largest dating and social discovery app valued at over 10 Billion US\$. He worked briefly as the Samuel R. Thompson Chair Associate Professor in the Department of Computer Science and Engineering at The University of Nebraska-Lincoln, at Hewlett-Packard Labs in Palo Alto, California, and at IBM T. J. Watson Research Center in New York.

Dr. Liu is an IEEE Fellow, and a Fellow of the Canadian Academy of Engineering. He is an associate member at the Quebec Al Institute (Mila), and McGill Center for Intelligent Machines (CIM). He was the chair of ACM SIGBED from 2021-2025. His research interests focus on Al/Machine Learning, Intelligent Computing and Communications Systems, Sustainable Computing, IoT, and CPS. He has published 5 books and over 400 research papers in major peer-reviewed international journals and conference proceedings, and received 10 best paper awards from IEEE or ACM. He has served as Associate editors/advisors of several international academic journals and has served on the technical or organization committees of over 100 international conferences/workshops. He is a recipient of several awards, including the Mitacs Award for Exceptional Leadership — Professor, and the Outstanding Young Canadian Computer Science Researcher Prizes from the Canadian Association of Computer Science. Dr. Liu is also an entrepreneur and has advised/co-founded several high-tech startups.

All are welcome!

