

Title: AI, FinTech and Big Data: Landscape and Applications

Abstract:

Finance is one of the mostly data-rich domains, smart FinTech has emerged as one of the most incredible and promising application areas of new-generation AI and data science. Financial businesses and data are diversified and challenging, posing significant practical scenarios for innovative AI and data science applications as well as profound challenges to AI and data science research. This talk briefly reviews the areas of smart FinTech, the landscape of classic to modern AI research in finance and data-driven analytics and learning for financial businesses, and discuss issues and opportunities of the existing AI research in finance. The talk further illustrates various shallow to deep analytics and learning methods for modeling asymmetric, tailed and dynamic high-dimensional cross-market couplings and dependencies and their applications in analyzing market pool manipulation, financial crisis, and portfolio investment. Brief discussion on the futures of AI in finance will conclude this talk.

Bio:

Longbing Cao is a professor and an Australian Research Council Future Fellow (Professorial level) at the University of Technology Sydney (UTS). He received the Eureka prize for excellence in data science, a most competitive scientific award in Australia. His broad research interest covers data science, artificial intelligence, machine learning, behavior informatics, knowledge discovery, and complex intelligent systems, etc. He created several Australian and global initiatives in data science. He has led many large enterprise data science projects for government and business, involving over 10 domains including capital markets, banking, insurance, telecommunication, transport, education, online business and public sectors (e.g., financial service, taxation, social welfare, IP, regulation, immigration). In finance, his experience involves the applications of advanced AI and data science in financial data analysis, cross-market analysis, risk modelling, algorithmic trading, and market surveillance, collaborating with major exchanges, brokerage firms, and government regulation bodies. More about his work is available at www.Datasciences.org.