

# COMP 45th Anniversary Distinguished Lecture Series



## AI at Dawn - opportunities and challenges

### ► Abstract

Since the concept of Turing machine has been first proposed in 1936, the capability of machines to perform intelligent tasks went on growing exponentially. Artificial Intelligence (AI), as an essential accelerator, pursues the target of making machines as intelligent as human beings. It has already reformed how we live, work, learning, discover and communicate. In this talk, I will review our recent progress on AI by introducing some representative advancements from algorithms to applications, and illustrate the stairs for its realization from perceiving to learning, reasoning and behaving. To push AI from the narrow to the general, many challenges lie ahead. I will bring some examples out into the open, and shed lights on our future target. Today, we teach machines how to be intelligent as ourselves. Tomorrow, they will be our partners to step into our daily life.

### ► About the Speaker

Prof. Dacheng Tao is Professor of Computer Science and ARC Laureate Fellow in the School of Information Technologies and the Faculty of Engineering and Information Technologies, and the Inaugural Director of the UBTECH Sydney Artificial Intelligence Centre, at the University of Sydney. He is also the Chief Scientist of AI at UBTECH. He mainly applies statistics and mathematics to Artificial Intelligence and Data Science. His research results have expounded in one monograph and 200+ publications at prestigious journals and prominent conferences, such as IEEE T-PAMI, T-IP, T-NNLS, IJCV, JMLR, NIPS, ICML, CVPR, ICCV, ECCV, ICDM; and ACM SIGKDD, with several best paper awards, such as the best theory/algorithm paper runner up award in IEEE ICDM'07, the best student paper award in IEEE ICDM'13, the distinguished paper award in the 2018 IJCAI, the 2014 ICDM 10-year highest-impact paper award, and the 2017 IEEE Signal Processing Society Best Paper Award. He is a Fellow of the Australian Academy of Science, AAAS, IEEE, IAPR, OSA and SPIE.



**Prof. Dacheng Tao**

ARC Laureate Fellow  
Professor of Computer Science  
School of Computer Science  
University of Sydney  
Australia

#### Date

**11 March 2019 (Monday)**

#### Time

**2:30 p.m. - 3:30 p.m.**

#### Venue

Room PQ703  
7/Floor PQ Core  
Mong Man Wai Building  
The Hong Kong Polytechnic University