

## Department of Computer Science



### Dr. Zhenghua Chen

- Scientist, PI & Lab Head, at Institute for Infocomm Research, A\*STAR, Singapore
- PI at Centre for Frontier AI Research (CFAR), A\*STAR, Singapore

 **Date: 13 June 2022 (Monday)**

 **Time: 10:00am – 11:00am**

 **Venue: RRS905, Ho Sin Hang Campus**

 **Registration: <http://bit.ly/bucs-ereg>**

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## Time Series Representation Learning & Domain Adaptation

### **ABSTRACT**

In the first part of this seminar, I will present two important research directions in time series data analytics, i.e., representation learning and domain adaptation. Specifically, I will present a self-supervised learning framework, namely Temporal and Contextual Contrasting, for learning representations on time series data. Considering that time series data often suffer from domain shift due to environment changes or device heterogeneous, various time series domain adaptation methods have been developed. However, they generally encounter the issues of inconsistencies in backbone architectures, evaluation datasets, evaluation schemes, etc. To address these issues, our team has developed a benchmarking evaluation suite (named ADATIME) to fairly and systematically evaluate different time series domain adaptation approaches.

In the second part of this seminar, I will introduce a newly established AI Centre in Singapore, i.e., A\*STAR Centre for Frontier AI Research (CFAR), led by Prof Ivor Tsang (IEEE Fellow). The aim is to conduct fundamental AI research to push the boundaries of AI, bringing economic and scientific impacts in global scale. I will introduce research topics in CFAR and some opportunities in research collaborations and scholarships for Intern and PhD students.

### **BIOGRAPHY**

Dr. Zhenghua Chen is currently a Scientist, PI and Lab Head at Institute for Infocomm Research, Agency for Science, Technology and Research (A\*STAR), Singapore, and an Early Career Investigator at Centre for Frontier AI Research (CFAR), A\*STAR, Singapore. He received the B.Eng. degree from University of Electronic Science and Technology of China and Ph.D. degree from Nanyang Technological University (NTU), Singapore.

His research interests include time series data analytics, transfer learning, model compression and related applications. He works as PI and Co-PI for a number of research grants, including A\*STAR CDA, AME Programmatic, NRF YIRG, etc. (Total amount > 10m SGD). He has been listed as World's Top 2% Scientists by researchers from Stanford University. Besides, he has won several competitive awards, such as A\*STAR Career Development Award, First Place Winner for UG2+ Prize Challenge at CVPR 2021, First Runner-Up Award for Grand Challenge at IEEE VCIP 2020, Finalist Academic Paper Award of IEEE ICPHM 2020, etc. He currently serves as the Associate Editor for Neurocomputing and the Vice Chair of IEEE Sensors Council Chapter, Singapore.

### **ENQUIRY**