



**THE CHINESE UNIVERSITY OF HONG KONG**  
Department of Information Engineering  
*Seminar*

**Towards Data-Efficient, Compute-Efficient,  
and Verified Robust Learning**

**By**

**Mr. YUE Xiangyu**  
**University of California, Berkeley, USA**

**Date** : 7 April 2022 (Thursday)

**Time** : 10:30am – 11:30am

**Zoom** : <https://cuhk.zoom.us/j/98014021152?pwd=eIR4QUIFK2RBYjh5QUUNvcTZNQTFRZz09>

(Meeting ID: 980 1402 1152; Passcode: 088926)

Abstract

The renaissance of AI has mostly been supported by three key factors: more labeled data, more compute, and more complex neural nets. However, labeled data are not always available; computing hardware has been dwarfed by the scale of large models; and model behaviors are unpredictable, which is a key problem in safety-critical scenarios. In this talk, I'll present the works that I have done to mitigate these issues. The work spans self-supervised learning, transfer learning, computer vision, efficient learning, formal methods, programming languages, etc; and contributes towards more data-efficient, compute-efficient, and verified robust learning.

Biography

Xiangyu Yue is currently a Ph.D. candidate in Electrical Engineering and Computer Science at UC Berkeley. He works in Berkeley AI Research (BAIR) and Berkeley DeepDrive. Before coming to Berkeley, he received B.S. at Nanjing University and M.S. at Stanford University. His research interest broadly lies in Machine Learning, Transfer Learning, Computer Vision, Efficient Learning, Explainable Learning, with applications in Autonomous Driving, Robotics, Medical Imaging, etc. According to Google Scholar, his papers have gotten 2800+ citations with H-index 17. Due to his research, he has received the Berkeley EECS student award: Lotfi A. Zadeh Prize.

**\*\* ALL ARE WELCOME \*\***