THE HONG KONG POLYTECHNIC UNIVERSITY
香港理工大學

DEPARTMENT OF APPLIED MATHEMATICS
應 用 數 學 系

The Hong Kong Polytechnic University
Department of Applied Mathematics

AMA Distinguished Seminar Series in Data Science and Machine Learning

A Statistical Journey through Trustworthy AI

By

Prof. Guang CHENG
University of California, Los Angeles

Abstract

Our lab believes that the next generation of AI is mainly driven by trustworthiness, beyond performance. This talk attempts to offer statistical solutions to embrace three challenges in trustworthy AI: privacy, robustness and fairness. Specifically, we consider privacy protection by machine un-learning, enhanced adversarial robustness via synthetic data, and establishing fair Bayes-optimal classifiers. These results demonstrate the unique value of statisticians in studying trustworthy AI from empirical, methodological or theoretical aspects. Part of this talk is based on the following works:
https://arxiv.org/pdf/2202.06996.pdf
http://proceedings.mlr.press/v130/li21a/li21a.pdf
https://arxiv.org/pdf/2202.09724.pdf

Biography

Guang Cheng is a Professor of Statistics at UCLA. He received his PhD in Statistics from University of Wisconsin-Madison in 2006. His research interests include Trustworthy AI, Deep Learning Theory and Statistical Machine Learning. He is an IMS fellow, and also the recipient of the NSF CAREER award, Noether Young Scholar Award and Simons Fellowship in Mathematics. Please visit his trustworthy AI Lab at http://www.stat.ucla.edu/~guangcheng/

Click to join (Zoom)

Date: 13 May 2022 (Friday)
Time: 9:30-10:30 (Hong Kong Standard Time GMT +8)
Venue: Online Talk via Zoom (Meeting ID: 912 7874 7079)
Speaker: Prof. Guang Cheng, University of California, Los Angeles
Host: Prof. Xingqiu Zhao, The Hong Kong Polytechnic University
Click to join:
https://polyu.zoom.us/j/91278747079?pwd=eGhzdTBHZytOcVlCRXR2aklqTHVQQT09

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

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