

RESEARCH SEMINAR

Understanding the Internet with Data Science



Dr Ricky MOK

Research Scientist

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University of California, San Diego
USA

Date : 5 March 2024 (Tue)

Time : 4:00 pm - 5:00 pm

Venue : HJ303

Abstract

For nearly 70 years, the maxim "Garbage in, garbage out" has been the cornerstone of computing. In the age of data science, the quality of data sources lays the groundwork for the development and training of machine learning and artificial intelligence systems. CAIDA, a trailblazer in Internet measurement, has continually pioneered innovative methods, tools, and infrastructure to support longitudinal measurements and data collection, unveiling various characteristics of the Internet.

This talk will begin with an overview of the diverse datasets and tools provided by CAIDA to the research community, shedding light on the challenges in the data collection process. The latter part of the talk will delve into the machine learning and artificial intelligence techniques that leveraged CAIDA's datasets to gather insights about the Internet topology, performance, and cybersecurity.

About the Speaker

Dr Ricky Mok is a research scientist at the Center for Applied Internet Data Analysis (CAIDA)/University of California, San Diego. He received his PhD from the Department of Computing at The Hong Kong Polytechnic University. His research is focused on developing measurement techniques to studying the performance, resiliency, and security of the Internet. His work is published in prestigious conferences and journals, such as ACM SIGCOMM, ACM CoNEXT, ACM Internet measurement conference, USENIX Security Symposium, and IEEE/ACM Transaction on Networking. He received the best paper award at ACM SIGCOMM in 2018 and PAM conference in 2020. Furthermore, Dr Mok has been successful in securing over \$10M USD contracts and grants from National Science Foundation and industry partners to support various research activities and infrastructure at CAIDA.