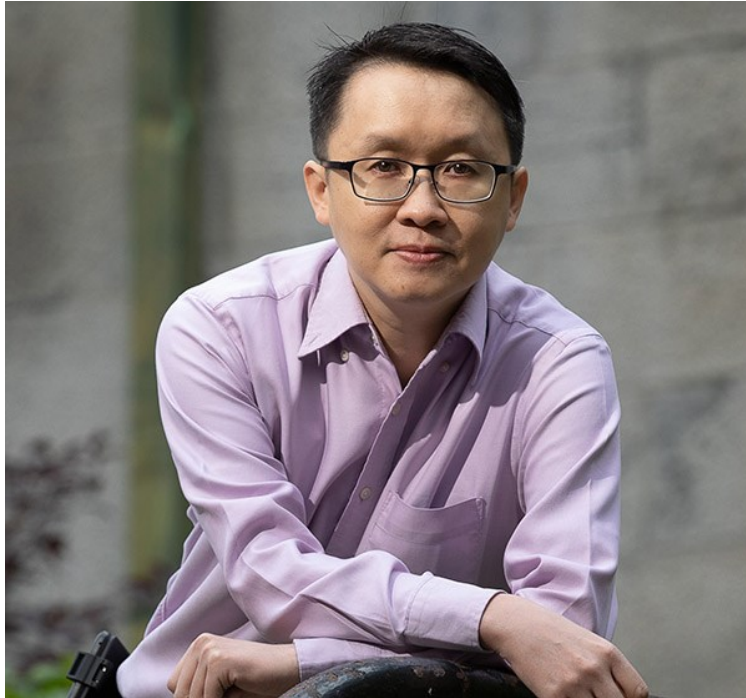# Keynote Speaker 1

Machine Learning for Cybersecurity and Privacy

Prof. Benjamin C. M. Fung, McGill University, Canada

- 8th November 2023
- 09:30 - 10:30 AM
- Conference Hall, University of Dubai

Abstract:

Three research directions in cybersecurity and privacy will be presented in this session. The first research direction is on privacy-preserving data publishing. The objective is to share large volumes of data for machine learning without compromising the privacy of individuals. We will discuss multiple data sharing scenarios in privacy-preserving data publishing. The second research direction is on authorship analysis. The objective is to identify the author or infer the author's characteristics based on his/her writing styles. The third problem is on malware analysis. Assembly code analysis is one of the critical processes for mitigating the exponentially increasing threats from malicious software. However, it is a manually intensive and time-consuming process even for experienced reverse engineers. An effective and efficient assembly code clone search engine can greatly reduce the effort of this process. I will briefly describe our award-winning assembly clone search engine.

Keynote Speaker 2

Understanding the Transformative Power of Generative AI in Modern Communication and Information Security

Prof. Amin Beheshti, Macquarie University, Australia

- 9th November 2023
- 11:00 AM - 12:00 PM
- Conference Hall, University of Dubai

Abstract:

Signals are the means by which information is transmitted from one point to another, whether it is sound/radio waves, speech, images, or even biological signals like an ECG. Understanding and analyzing signals are vital because they provide insights into their underlying information, enabling accurate communication, data interpretation, and decision-making across various domains, from telecommunications to healthcare. Generative Artificial Intelligence (AI) holds the potential to revolutionize the analysis, manipulation, and interpretation of signals by autonomously generating high-quality data, optimizing signal features in real-time, and providing innovative solutions for complex signal processing challenges, paving the way for advanced and efficient data-driven applications. This talk delves into the world of Generative AI and its transformative potential in signal processing and information security. Through real-world examples and case studies, we showcase the tangible benefits and opportunities that Generative AI brings to organizations across various industries.