CDMS Research Seminar

Artificial Intelligence for Automating Response to Threats

Wednesday, 17th November 2021, 11:30am

Zoom link:

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Speaker: A/Prof Julian Jang-Jaccard, Massey University, New Zealand.

Abstract: Cybersecurity Lab at Massey University, founded in 2016, has been one of the fastest-growing research labs in NZ dedicated to providing cutting-edge research theory, tools, and methodologies to improve the cybersecurity posture. Early 2020, the lab was awarded $2m from the Ministry for Business Innovation and Employment (MBIE) of the NZ government to develop a novel autonomous cyber-resilient system using the advancement of the latest AI techniques that can withhold against existing and increasingly raising AI-powered adversaries in the changing environment of the cyber landscape in NZ. In this presentation, I will present a set of AI-based techniques (e.g., Autoencoder, Multi-Layer Perceptron, Deep Q-learning based Reinforcement Learning, Generative Adversarial Network) we have developed in the last few years to detect and respond to various threats, especially around network intrusion, Android-based malware detection, and ransomware classification.

Bio: Dr Julian Jang-Jaccard is an Associate Professor at Massey University. Julian founded the cybersecurity lab at Massey in 2016. She has national recognition as a leading cybersecurity expert in New Zealand and a member of Trans-Tasman Cybersecurity Research Program (CSRP) advisory and executive board consulting for the NZ government. She currently leads two NZ government cybersecurity projects worth >$2.5m while collaborating with the top international ICT companies and universities around the world. She has published more than 70 papers in the leading conferences and journal venues, including IEEE and ACM. Her research interests include cybersecurity, intrusion detection, anomaly detection, artificial intelligence, data anonymization, and privacy-preservation techniques. Prior to Massey, she was the pioneering member of the cybersecurity research at Data61 CSIRO and developed the first set of practical cybersecurity solutions applied at Westpac and Telstra in Australia. Julian received the M.Sc. and Ph.D. degrees from The University of Sydney, Australia.

For details about CDMS Research Seminars, please contact Dr Rodrigo Calheiros (r.calheiros@westernsydney.edu.au)

Rodrigo Calheiros is inviting you to a scheduled Zoom meeting.

Topic: CDMS Research Seminar: Artificial Intelligence for Automating Response to Threats
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