Call For Industry Participation: Cloud and Blockchain Security Research Project

Introduction

Cloud computing and Blockchain technologies have been rapidly adopted by industry in recent years due to their unique features and functionalities. However, security vulnerabilities and risks in these systems have led to major attacks with significant costs to industry and society. At the same time, new emerging technologies, such as quantum computing, are in development which pose further new security risks to such systems.

Monash University (Melbourne, Australia), in collaboration with the University of Wollongong (Wollongong, Australia), is calling for industry participation in a CSIRO / Australian Government Funded Next Generation Emerging Technologies Graduates Program proposal on Cloud and Blockchain Security. We are looking for funding to support postgraduate research students to investigate practical solutions to **protect cloud and blockchain systems against existing and emerging cyber-attacks**.

Research Goal

The goal of this research project is to protect and future proof Australian cloud and blockchain transaction systems against existing and emerging cybersecurity threats**. In particular, this research project aims to tackle business, technology, and deployment hurdles in the adoption of cybersecurity technologies to protect cloud and blockchain systems and their applications in the finance and other industries against cyber-attacks**.

The research project will achieve this by conducting multi-disciplinary research on developing practical protocols and implementations to secure cloud and blockchain transaction infrastructure across platforms, including web, financial transaction systems, and blockchain transaction systems. The research will conduct business risk analysis to evaluate and identify the high-risk points in these systems that need to be protected and the impact on organization, identify and develop solutions to technological challenges to minimise the business cost of cyber-security technology adoption, and identify and develop solutions to deployment of cybersecurity technology in the applications of cloud and blockchain systems.

Student Type, Funding Requirements and Student Placement within Firm

We are looking for industry partners with a large Australia-based presence in either the Financial industry and/or Technology industry to partly fund and host internships for postgraduate students at either PhD, Masters or Honours level. The research scholarships for this research project may cover the period of the project (2022-2026). The required industry partner contribution is listed in the table below for four different types of student over the whole project period (e.g. $60,000 over 2022-2026 per PhD student or $7,500 for an Honours student for a 1-year project).

The research students funded by the industry partner will work closely with the industry partner and their university supervisors for the duration of their research enrolment (3.5 years for PhD, 2 years for MPhil, 1 year for Masters Minor Thesis and 1 year for Honours and Coursework Masters students) on a topic of interest to the industry partner.

The students will also conduct a research internship at the industry partner's premises for the indicated period (6 months for PhD students). Industry sponsors would benefit from not only the research but also access to skill sets and knowledge not available in the market. In addition, they would benefit from access to methods, intellectual capital and technology that is potentially ground breaking.

Contact for further details:
Dr Kym Brown
Kym.Brown@monash.edu
Department of Banking and Finance, Monash University

Or

Associate Professor Ron Steinfeld
Faculty of Information Technology
Monash University (ron.steinfeld@monash.edu)