

INDUSTRY NEWSLETTER

ISSUE NO #10 | APRIL 2023

Highlights

iConnect Member Spotlight: Housing & Development Board (HDB)



HOUSING & DEVELOPMENT BOARD

The Housing & Development Board (HDB) is Singapore's public housing authority. Singapore's public housing has housed an entire nation – today, more than 1 million flats have been completed in 23 towns and three estates across the island. HDB flats means home for 80% of Singapore's resident population, of which about 90% own their homes.

HDB's mission is to provide affordable, quality housing and a great living environment where communities thrive. To achieve its mission, HDB aims to be data-driven to the core and adopt evidence-based decision-making in developing better housing policies service, improving service delivery, and optimising operations.

HDB has its own IT arm known as the Information Services Group (ISG). ISG champions HDB's digital transformation efforts, continuously innovating end-to-end IT solutions and services to enable HDB to meet its mission.

At ISG, we have a vast pool of tech domains for one to explore and build an IT career like Software Engineering, Cloud computing, Cybersecurity, IoT, Data Science/AI, UI/UX, Project Management, Infrastructure Management (Network, Systems and even our own Data Centre) and many more.

Join us to make a difference to pursue meaningful careers to improve citizens' lives and leverage on technologies to make Singapore a Smarter Nation.

HDB is currently looking for both full time employees as well as interns. To join us or find out more about computing roles within HDB, check out the links below:

<https://www.hdb.gov.sg/cs/infoweb/about-us/careers/career-opportunities>

Hear from NUS alumnus working in HDB Information Services Group (ISG):



Melvin Heng

Systems Analyst

Information Services Group,
Business Information Systems
Department 1

Graduating Class of 2021

NUS School of Computing
(Information Systems)

Coming into HDB-ISG, one of the aspects that aided adaptability was NUS's curriculum, as we get to apply the technological stacks that we were taught. Certainly, there are also other platforms and tools that we will be exposed to, such as the Application Programming Interfaces (APIs) and even advanced analytics tools. Such platforms and tools will help us to learn, create, and maintain web applications to serve both internal and public stakeholders.

Being in the Business Information Systems Department 1, I have the opportunity to work on housing mortgage projects, allowing the public community to make payments digitally. Such project scopes also involved external agencies such as CPF Board. Hence, at HDB-ISG, we also get to hone our project management skills by overseeing system changes which includes requirements gathering, stakeholders, and resource management as part of the software development lifecycle.

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We have a family-oriented culture and we strive for work-life balance. Not only do we get to participate in events such as technological or management conferences, there are also monthly staff engagement activities organised by our internal recreational committee for staff to look forward to. Moreover, we

may also opt to be part of such committees which helps us further develop our interpersonal skills and play a part in employees' wellness.

With digitalisation paving the way forward, being part of the HDB-ISG family is an opportunity for us to serve the public community by bringing service delivery improvements with the use of technology.



Yoong Yi En

Intern

Information Services Group
(Cybersecurity Operations &
Governance Department)

Graduating in 2023

*NUS School of Computing
(Computer Science)*

My experience in HDB-ISG's Cybersecurity Department so far has been an enriching and fun one! I have picked up a multitude of new skills such as secure coding and also dabbled in many new technologies and frameworks. I also received very good mentorship and guidance from my supervisor. Through his mentorship, I even managed to turn some challenges into opportunities for my project.

“I have picked up a multitude of new skills such as secure coding and also dabbled in many new technologies and frameworks.”

The tool I am working on seeks to encourage application developers to embrace application security through adopting good secure coding habits at the onset of the software development lifecycle. The tool also ensures consistent and comprehensive code review is being carried out to ensure the applications remain safe, secure and of high quality despite the fast-changing cybersecurity landscape.

The overall team culture is very friendly and encouraging. On my 2nd week with HDB, I joined my department for bowling and got to know my friendly colleagues better. Through casual conversations and laughs over lunch with colleagues who have been in HDB-ISG for years, I also got to better understand the work culture.

All these greatly helped me settle in and feel comfortable in HDB-ISG. I am able and also encouraged to explore new ideas as they believe it can bring about productivity and efficiency to the organisation. If I face any difficulties or am in doubt, I am able to seek help quickly which I believe is very important in the workplace.

Calling all software and security professionals, your help is needed



Professor Abhik Roychoudhury and his research group are working to understand how engineers in the industry view “fuzzing”, an automated software testing technique.

The goal of the research is to help the research community focus on aspects of fuzzing that would be most impactful and work towards their adoption as part of standard development and testing workflows.

The research group is looking for developers, testers, as well as security auditors to answer a short questionnaire – no prior experience with fuzzing necessary!

For each response the group receives, they will donate \$5 USD (up to 100 responses) to Doctors Without Borders, an independent group of doctors dedicated to delivering emergency medical aid to people in crisis. So, each response would not only advance research in the group's area but also help those in need.

You can access the survey link [here](#).

For more enquiries, contact:

Prof. Abhik ROYCHOUDHURY:

abhik@comp.nus.edu.sg

Capstone Projects Proposal Schedule

Master of Computing – General Track

This capstone internship provides an opportunity for students to work on solving problems beyond the formal classroom setting.

4 months individual internship with a company

Company submission period: Nov 2022 - April 2023

Internship period: May - Sept 2023

Contact: gt-capst@comp.nus.edu.sg

Master of Science in Digital Financial Technology (MSc DFinTech)

The MSc DFinTech Capstone internship requires students to have experiential learning in academic research, translational research or software development.

4-6 months individual internship with a company

Company submission period: Nov 2022 - April 2023

Internship period: May - Sept/ Nov 2023

Contact: aidf@nus.edu.sg

Master of Science in Business Analytics (MSBA)

The industry-linked professional consulting capstone project requires students to analyse and provide solutions to today's real-world business analytics problems.

4 months individual project with a company. Work to be done in NUS

Company submission period: Jan - April 2023

Project period: May - Aug 2023

Contact: MSBA@nus.edu.sg

Business Analytics (Undergraduate)

Students are expected to solve a real-world business analytics project proposed by a company which could include (but not limited to): data analytics, machine learning, design and development of interactive and performance dashboard, and data mining.

3 months group project with a company. Work to be done in NUS

Company submission period: June - July 2023
Nov - Dec 2023

Project period: Aug - Nov 2023
Jan - April 2024

Contact: shalinda@comp.nus.edu.sg

Information Systems (Undergraduate)

Students are required to develop a business information system by completing an entire Systems Development Life Cycle (SDLC) which includes gathering requirements, analysing requirements, designing the system (both software and hardware), implementing and deploying the system.

3 months group project developing software system for company. Work to be done in NUS

Company submission period: June - July 2023
Nov - Dec 2023

Project period: Aug - Nov 2023
Jan - April 2024

Contact: tanwk@comp.nus.edu.sg (Aug-Nov term); hsianghui@nus.edu.sg (Jan-April term)



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