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Building his expertise, module by module

The 'stackable' master's degree at NUS-ISS lets Mr Melcom Lee juggle work and studies and helped him wield more tools at work

BY RACHEL CHIA

A master's from NUS-ISS helps tech engineer Melcolm Lee to stay relevant in the indsutry. PHOTO: WEE TY

While many engineers want to see the fruits of their work at use in society, Mr Melcom Lee is one of the few who hope for the opposite.

"As much as I am proud of the defence and army systems I helped build, I also hope that they don't get deployed one day," says the senior engineer of five years at the Defence Science and Technology Agency (DSTA).

DSTA is the central procurement agency for the Ministry of Defence and Singapore Armed Forces, for which Mr Lee helps develop command, control and communications systems, and deliver development, security, and operations capabilities.

Beyond defence, the 28-year-old hopes the tech his team creates for other government agencies, such as Covid-19 systems, helps Singaporeans. "People depend on these systems to make their work more efficient," he says.

Mr Lee, who studied computer science as an undergraduate, has just completed his coursework for a part-time master's degree in software engineering from the Institute of Systems Science at National University of Singapore (NUS-ISS), and is awaiting his graduation in July.

Getting a master's degree was a personal goal he had conceived since attending NUS-ISS courses for DSTA.

"If I want to stay relevant in the tech industry, I need to continuously improve," he explains. "I found the school offered a master's, looked into the concepts they were teaching as part of the programme, and found some of the modules very useful to my work."

Among these are cybersecurity, cloud native architecture, and Internet of Things. The latter two topics are Mr Lee's personal favourites – he has even rigged an automated setup at home where the lights turn off when he leaves.

At work, he is also tackling cloud-related projects, where his enhanced knowledge can be applied. For example, with new projects, DSTA engineers must design cloud architecture from scratch.

Thanks to this enhanced familiarity with tech concepts and stronger knowledge base, he also feels more valued by colleagues at work.

"They know I have the technical know-how, and can better figure out solutions," says Mr Lee. "Taking a master's is not only about the knowledge, but the kind of thinking that they train you in."

It's also thanks to the flexibility of the NUS-ISS programme that Mr Lee was able to realise his dream of further education.

As lessons for the "stackable" programme are held on weekends, he could juggle studies and work for two years by doing his coursework on weekday nights.

He also adjusted his study load to match the demands of his job. Obtaining a master's from NUS-ISS requires participants to complete a capstone project and three Graduate Certificates.

Participants can decide when to take these Graduate Certificates. "The majority of the coursework was manageable. If my workload was high, I could push back the start date for the next Graduate Certificate if needed," says Mr Lee.

But it's all in a day's work for the tech-lover, who has always been motivated to learn new things in his pursuit of self-improvement.

"I always want to take the time to advance my knowledge, and see how digital tools can improve people's lives," says Mr Lee.

"Any form of future-proofing is a good idea to stay relevant."

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