



Mr Lee Yi is one of the first two recipients of the Singapore Armed Forces Merit Scholarship from the military's cyber security vocation, dubbed Command, Control, Communications and Computers Expert. PHOTO: MINISTRY OF DEFENCE

From coding for fun to cyber expert at Mindef

Rei Kurohi

While many of his peers were building castles and fending off zombies on Minecraft, 12-year-old Lee Yi was busy coding a virtual calculator in the game's world.

He had chanced upon a modification to the popular sandbox video game, which allows players to construct programmable blocks, and quickly developed an interest in programming.

"I enjoy programming because it lets me solve my own problems. If I need something done, I can just get my computer to do it," said Mr Lee, now 20. "For example, while I was learning driving, it was hard to get slots for lessons, so I wrote myself a Python bot to do it for me. It would open up the website, check for slots and then message me on Telegram if there were any."

He will soon apply his talent to bolstering Singapore's cyber defence at the Ministry of Defence (Mindef), where he holds the rank of Military Expert 4 (Apprentice) under the Military Domain Experts Scheme.

The first-year computer science undergraduate at the National University of Singapore is one of the first two recipients of the Singapore Armed Forces Merit Scholarship from the military's cyber security vocation, dubbed Command, Control, Communications and Computers Expert (C4X).

C4X was established in mid-2019 as part of Mindef's efforts to defend Singapore's critical digital assets.

Mindef had said it aimed to recruit 300 cyber experts who would be trained in technical skills such as threat hunting, malware forensics, cryptography, network security and cyber analytics. They would be deployed to defend Mindef and SAF systems and networks.

In January last year, the first batch of C4X trainees received their senior military expert ranks. The ministry declined to provide a figure for the number of personnel trained under the C4X scheme to date.

Mr Lee was one of 84 awardees at this year's Defence Scholarship Awards Ceremony on Aug 28, where eight types of scholarships were awarded.

"Honestly, when I went into basic military training, I had no intention of signing on, but I was thinking about a career in computers," he said.

"Through a recruitment talk, I got a chance to learn about the cyber expert vocation and it sounded like it was meant for me."

His parents, who both work in the information technology sector, were taken aback by his interest in signing on at first, but they were supportive and encouraged him to take up the opportunity.

For Mr Lee, a key part of securing Singapore's cyber defence is simply raising the average Singaporean's awareness of cyber threats.

He noted that many people still use passwords that are easy to remember but not secure, and often use them for multiple accounts. This means a hacker who intercepts the password from an unsecured website or service could potentially access many other accounts belonging to the same victim.

He likened the importance of cyber hygiene in a world with increasingly prevalent cyber threats to the importance of personal hygiene during the Covid-19 pandemic. "People don't take certain things like viruses seriously until it affects them," he said.

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