

PURSUING MEANINGFUL ASPIRATIONS

At DSTA, Vincent realises his childhood aspirations by translating his passion for technology to developing high-tech systems for Singapore's defence.

An avid fan of military movies, Vincent Neo recalls moments as a young boy when he imagined himself saving lives as a war hero. His childhood fascination with all things military translated into a passion for technology, as he learned about the science behind everyday devices from his father who worked as an electrician.

While serving National Service, Vincent learned more about DSTA from his Officer Commanding who had worked with defence engineers to develop innovative tech solutions for the Singapore Armed Forces. 'He shared first-hand insights into how the engineers strive to push tech boundaries for our nation's defence,' he says. In the armour unit, Vincent himself got to work with tanks and land systems that were delivered by defence engineers.

These positive experiences spurred him to pursue his aspirations with the DSTA Scholarship, where he studied Electrical and Electronic Engineering at Imperial College in the UK.

To prepare himself for a career as a defence engineer, Vincent completed two internships at DSTA in 2010 and 2012. He describes his first internship as extremely exciting as he worked on solutions to strengthen armoured vehicles, so that soldiers on the ground could be better protected against explosives.

Vincent's second internship involved applying data analytics to design a system that can transcribe human speeches automatically. It was this experience that motivated him to pursue a research



VINCENT NEO WEISHENG

DSTA Scholarship
www.dsta.gov.sg

Age: 27

Now: Engineer in C4I Development Programme Centre

Attained: Master of Engineering in Electrical & Electronic Engineering from Imperial College London

From: Temasek JC

programme in data analytics in the third year of his undergraduate studies, where he gained knowledge and skills that are useful to his work today.

'Both internship experiences allowed me to understand the spectrum of work that DSTA does. There was definitely a steep learning curve but seniors and mentors were very helpful and friendly, and I could approach them to ask questions,' Vincent says.

Now an engineer in DSTA's C4I Development Programme Centre, Vincent develops command and control systems that piece together battlefield information such that soldiers are able to form a comprehensive situational picture quickly to make faster and better assessments and

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decisions.

He is also working on a software that helps to prevent interference among military devices such as radar, sensors, and communication systems.

When asked about his most memorable project, Vincent describes how he prototyped an algorithm that allows electronic devices to make more effective use of frequencies and signals. This exploratory project started as part of the DSTA Innovation Fund initiative, where engineers could tap on to explore innovative ideas for Singapore's defence. He adds that the multi-disciplinary environment in DSTA, and helpful colleagues who were open to sharing ideas helped him refine and improve on this project along the way.

'DSTA encourages bottom-up innovation, which gives me opportunities to explore and work on my ideas. The strong support I receive from my supervisors and colleagues help me to overcome and embrace challenges as learning opportunities,' Vincent explains.

To aspiring applicants of the DSTA Scholarship, Vincent says: 'A defence engineer must be a good team player to thrive in the strong culture of collaboration and teamwork within the organisation. One must also be dedicated and passionate to be creative in applying technology for Singapore's defence and other national challenges.' □

