

NEWS RELEASE

BrainHack, One of Singapore's Largest Experiential Technology Learning Festival, Paves the Way for Students' Careers in Defence Technology

BrainHack – the flagship annual learning festival organised by the Defence Science and Technology Agency (DSTA) for aspiring young technologists – saw its largest turnout ever, with over 4,000 students from 109 schools taking part. This year's BrainHack in its 6th edition was held from 1 May to 13 June 2024. Besides being one of the largest events of its kind, BrainHack is unique from other platforms in that it exposes students to a wide spectrum of emerging technologies, without a need for them to have any prior technological knowledge or background.

At the BrainHack 2024 finale on 13 June, Senior Minister of State for Defence, Mr Heng Chee How highlighted the importance of platforms like BrainHack to nurture the next generation of defence scientists and engineers. He said, "I hope that BrainHack has ignited your interest in defence technology, and has inspired you to further your passion for lifelong learning in this important domain of digital defence."

Lee Guang Le Jeffrey, a student from Ngee Ann Polytechnic, elaborated how BrainHack has ignited his passion for Information and Communications Technology (ICT) and interest in the defence science and technology sector. He said: "I did not have any background in ICT prior to joining BrainHack's XRperience in 2023. The activity was beginner-friendly and introduced me to the exciting world of extended reality, inspiring me to learn more. From the fantastic experience I had from last year and my recent interest in mobile app development, I decided to join BrainHack 2024's CodeEXP to develop my skills further in this field." Following the last BrainHack, Jeffrey applied and received the DSTA Polytechnic Scholarship, and subsequently gained an

internship stint at DSTA, where he helped to build and improve machine learning models.

Themed “Imagine What’s Next”, BrainHack 2024 enabled students to hone their skills in emerging technologies ranging from cybersecurity, artificial intelligence, space technologies, app development, fake news detection, and extended reality, through workshops, competitions and hackathons. For example, students learnt to develop multimodal AI models capable of processing various types of data such as imagery and text, which is where AI research is moving towards.

BrainHack 2024 also featured an interactive tech showcase where participants had hands-on experiences to programme drones, develop counter-drone systems, attempt to evade a Light Detection and Ranging (LiDAR) AI system, control a drone swarm through a simulated Command and Control system, and more. In addition, students had a chance to hear from speakers from across various fields, including Brigadier General Roberto Vittori, a former astronaut from the European Space Agency, who had been on multiple space missions. In collaboration with the Cyber Security Agency of Singapore, talents from the Cyber Defenders Discovery Camp (CDDC) will also be identified for the SG Cyber Olympians programme, which trains its participants to represent Singapore in international cyber Capture-The-Flag (CTF) competitions (refer to factsheet for more details).

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About Defence Science and Technology Agency

The Defence Science and Technology Agency (DSTA) is a top-notch technology organisation that drives innovation and delivers state-of-the-art capabilities to make the Singapore Armed Forces a formidable fighting force. Harnessing and exploiting science and technology, our engineers and IT professionals leverage multidisciplinary expertise to equip our soldiers with advanced systems to defend Singapore. DSTA also contributes its technological expertise to support national-level developments. To achieve our mission, DSTA excels in systems engineering, digitalised platforms, cyber, software development and more.

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