Kairos Tay

PROFILE

Cybersecurity and Digital Forensics student experienced in scientific research and software development. Possesses strong aptitude for self-directed learning and a track record of completing projects autonomously. Seeking to push boundaries and drive innovation in cybersecurity.

PROFESSIONAL EXPERIENCE

DevSecOps Engineer | **Ensign InfoSecurity Pte. Ltd.**

Aug 2024 - Feb 2025

- Engaged in research and development efforts of various cybersecurity solutions.
- Contributed to developing security solutions to proactively identify and address vulnerabilities in their clients' assets.

Research Intern | Science Centre Singapore

Jan 2021 – Feb 2022

- Developed methodologies utilising embedded systems with Arduino in C++ to minimize experimental errors in kinetic studies to a precision of 1%.
- Authored and presented a research paper at the 28th Youth Science Conference.

EDUCATION

Cybersecurity and Digital Forensics (Dip) | Ngee Ann Polytechnic

Apr 2023 - Present

- cGPA: 4.0 (on a 4.0 scale)
- DSTA Polytechnic Digital Scholar
- NullSec's President: Spearheaded key events like YCEP and NullSecCTF.
- Competed in CTFs, notably: CDDC'24 (3rd), GreyCTF'24 (11th), Hack@AC (16th).
- Represented Singapore at the Global Cybersecurity Camp (GCC) 2025, and won best project.

PROJECTS

404Unfound CTF Team

Founded a CTF team (404Unfound.com ℰ) for enthusiasts to learn from each other.

BB84 Quantum Key Distribution (QKD) Simulator ∂

- Developed a QKD tool using the Python Qiskit library to simulate QKD environments with 84% accuracy.
- Integrated the simulator into a Flask web application, offering a more intuitive user experience.

Palo Alto Networks (PAN) Firewall Rule Verifier ∂

• Developed a Python tool to efficiently verify firewall rules' functionalities with APIs and protocols.

CERTIFICATIONS

Literacy in AI — AI Singapore ∅

Networking Essentials — **Cisco** *⊘*

SKILLS

Languages

Python • C# • C++ • HTML5 • CSS3 • JavaScript • Bash

Cyber Security

Cryptography • Digital Forensics • Malware Analysis • Penetration Testing • Linux SysAdmin

Soft Skills

Adaptability • Proactiveness • Teamwork