

Hubertus Adhy Pratama Setiawan

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Education

National University of Singapore (NUS)

Bachelor of Computing in Information Security

Singapore

Aug 2019 - Jun 2023

- CAP: 4.69 out of 5 (3.75 out of 4)
- Recipient of the Cyber Security Agency of Singapore (CSA) Book Prize, a scholarship awarded to the top 4th year student in B.Comp - Information Security (AY2022-23).
- Specialised in parallel computing, networking and distributed systems, and systems security.

Technical Skills

Programming Languages Python, C, C++, Bash, Java, SQL

Technologies and Tools Ansible, AWS, Burp suite, Docker, Elasticsearch, Flask, Git, GDB, Ghidra, Linux, Wireshark

Certifications [Red Hat Certified System Administrator](#)

Work Experiences

National University of Singapore (NUS)

Teaching Assistant

Singapore

Jul 2023 - Present

- Taught more than 150 students about object-oriented programming concepts to help them write clean, extensible, and maintainable code.
- Explained interesting concepts in computer science such as generics, immutability, lazy evaluation, asynchronous programming, and functional programming.
- Previously taught Programming Methodology, Data Structures and Algorithms, and Computer Networks to a total of 120 students across 4 semesters as an undergraduate tutor. Received the [Honor List of Student Tutors](#) awards ([AY2021-22](#)) for excellence in teaching.

TRS Forensics

Information Security Intern

Singapore

Dec 2021 - May 2022

- Developed an internal tool to prevent penetration testers from attacking out-of-scope targets during an engagement using Flask, OpenVPN, Linux iptables, and the ELK stack.
- Created an internal data visualisation website using Dash, Flask, and MySQL. Wrote scripts to automatically deploy the website using Apache HTTP Server.
- Conducted penetration testing on various web and Android applications and wrote comprehensive reports with clear steps to help clients patch their systems.
- Performed digital forensics process starting from evidence preservation until image analysis using various state-of-the-art forensics tools.

Envision Digital International

Cybersecurity Engineer Intern

Singapore

Jun 2021 - Sep 2021

- Conducted vulnerability scanning using various software composition analysis tools and wrote bash scripts to automate the process of uploading the software, scanning, and retrieving the scan result by utilising REST API.
- Built a testing environment for the integration of the ELK stack for sending, collecting, and correlating security logs.
- Helped the Digital Forensics and Incident Response Team to perform digital forensics on EnCase Image using Autopsy and AccessData FTK Imager.

Projects

Chioproctor | <https://github.com/adhy-p/chioproctor>

2021

- Devised an IoT solution to help people maintain good postures. Created and trained a machine learning model to predict user's posture based on accelerometer and gyroscope data.
- Managed the infrastructure (AWS EC2), devices communication (Bluetooth Low Energy + MQTT), and data collection.

Other Experiences

National University of Singapore (NUS)

Student Researcher

Singapore

Aug 2022 - Apr 2023

- Implemented an end-to-end solution to convert malwares to *behaviour graphs*, a high-level structure to help malware researchers understand the control flow and capabilities of a malware.
- Utilised IDAPython for control-flow graph generation, Mandiant capa for capability identification, and NetworkX for graph manipulation. The code is available at <https://github.com/adhy-p/explaining-malware>.

Extracurricular Activities

- [NUS Greyhats](#) (Oct 2021 - June 2023): NUS' cybersecurity interest group. Presented [a talk about Burpsuite](#), played capture the flags (CTF) as a team, and participated in internal trainings in cryptography, web exploitation, reverse engineering, and binary exploitation.