Hubertus Adhy Pratama Setiawan

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Education

National University of Singapore (NUS) — Singapore
Bachelor of Computing in Information Security — Aug 2019 - May 2023 (Expected)
- Current CAP: 4.68 out of 5 (3.74 out of 4)
- Relevant coursework: Software Engineering and Object-Oriented Programming, Data Structures and Algorithms, Parallel and Distributed Computing, Computer Networks, Operating System, Penetration Testing, Database Management.

Technical Skills

Programming Languages	C, C++, Python, Bash, Java, SQL
Technologies and Tools	AWS, Burp suite, Docker, Elasticsearch, Flask, Git, GDB, Ghidra, Linux, Wireshark
Certifications	Red Hat Certified System Administrator (expected, Apr 2023)
	Red Hat Certified Engineer (expected, Jun 2023)

Work Experiences

TRS Forensics — Singapore
Information Security Intern — 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's 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
- 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 utilizing REST API.
- Set up a testing environment for the integration of Filebeat and Elasticsearch 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

Matching Engine — 2023
- Implemented a multi-threaded order matching engine in C++ to match buy and sell orders using the price-time priority rule.
- Developed unit tests and conducted stress testing to verify the correctness and scalability of the software.

Chiroproctor | https://github.com/adhy-p/chiroproctor — 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.

Load Balancer — 2021
- Implemented a load balancer in C++ to distribute requests from clients into multiple servers to minimize average job completion time using weighted least connection algorithm.

Other Experience

National University of Singapore (NUS) — Singapore
Student Tutor — Aug 2020 - Dec 2022
- Taught Programming Methodology (AY2020-22), Data Structures and Algorithms (AY2020-21), and Computer Networks Practice (AY2022-23) to a total of 120 students across 4 semesters.
- Received the Honor List of Student Tutors awards (AY2021-22) for excellence in teaching.

Extracurricular Activity

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