

Derek, Thein Than Zaw

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I am an Applied Physics undergraduate student with a keen interest in Cyber Security and Deep Tech. I currently spend my free time preparing for Off Sec's OSCP certification and am currently looking for internship opportunities.

EDUCATION

Nanyang Technological University

Bachelor of Science in Physics / Applied Physics with intended minors in Mathematics & Computer Science
August 2021 - May 2025

Singapore Polytechnic

Diploma in Infocomm Security Management
April. 2018 – March 2021 | Cumulative GPA: 3.90/4
Honors: Diploma with Merit (Top 10%)

RELEVANT WORK EXPERIENCE

Threatspan Pte. Ltd, Freelancer

May. 2021 – Current

- Performed vulnerability assessment on a web application and recommended patches to enhance security.
- Migrated two linode servers hosting web content to wp-engine.

HoneyIDS, Software Engineer | <https://github.com/zql2532666/HoneyIDS>

Oct. 2020 – Current

- Started an open source internal attack and intrusion detection framework that makes use of distributed honeypot nodes.
- Developed the log data correlation engine that reduces cyber threat detection and response time in an organization by synthesizing hundreds logs to output one or two attack summaries.
- Developed an automated deployment mechanism that allowed one to deploy a honeypot in just 5 mouse clicks.
- Developed a multi-threaded heart beats server that allowed one to monitor the alive/dead status of a honeypot from the web interface.
- Helped Cyber Security researchers from COMSATS University Islamabad with HoneyIDS deployment.
- Tested the honeypot nodes using various penetration testing techniques.
- **Technologies:** Python, Bash, Flask, HTML, CSS, Javascript, Hp-Feeds, Open-Source Honeypots, MySQL, Kali Linux

Reachfield IT Solutions, Software Engineering Intern - Singapore

Mar. 2020 – Aug. 2020

- Led the development of a Crowd Management System prototype that was used to pitch to potential clients.
- For on-site servers, wrote backup bash scripts, configured network settings and performed process and memory management to enable business continuity.
- Configured ssh servers, site-to-site VPNs and remote desktop services to enable company-wide work from home during Covid lockdowns.
- Performed vulnerability assessments on two company products and recommended patches to be deployed to reduce clients' risk of getting cyber attacked.
- **Technologies:** HTML, CSS, Java, Bash, MongoDB, Express JS, Vue JS, Node JS, Python, Flask, Linux Servers, Cisco Network Devices, Kali Linux

PROJECTS

IoT Home Environment Monitoring System | <https://github.com/DerekDewreck/home-env-iot-project>

Dec. 2020 – Mar. 2021

- Implemented an AWS cloud-based home environment monitoring system that is able to provide real-time sensor value/status, display historical sensor value/status and control the actuators
- Implemented a full stack web application that allows users to interact with the sensors and actuators.
- **Technologies:** Python, Flask, AWS DynamoDB, Amazon SNS, MQTT
- **Hardware:** Arduino, Raspberry Pi, DHT11 Sensors, Light Dependant Resistors, Gas Sensors

Home Mini Enterprise Network

Jan 2020 – Aug. 2020

- Bought second hand Cisco Routers, Layer 2 & 3 Switches and built a home lab for educational purposes.
- Studied Cisco documentation extensively and configured various networking technologies such as VLANs, Routing Protocols [OSPF, BGP, EIGRP], VPNs, NAT and First Hop Redundancy Protocols.
- Wrote Python scripts to automate tasks such as VLAN deployment and to push and pull device configurations.

SKILLS

Technical skills:

- **Programming:** Python, Java, SQL, Node JS, Bash, HTML, CSS, Javascript, C (basic), Bootstrap, Flask, Vue JS, Express JS
- **Databases:** MySQL, MongoDB
- **Security & System Administration:** Linux & Windows System Administration, Network & Web Penetration Testing
- **Certifications:** Offensive Security Certified Professional - incoming

Languages: Burmese (native), English (fluent)