

Rouvin Erh

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Website: <https://rouvinerh.github.io> | Expected Graduation: May 2026

EDUCATION AND CERTIFICATIONS

National University of Singapore (NUS)

Aug 2022 – May 2026

Bachelor of Computing in Information Security with Honours

- Achieved GPA of 4.74 / 5.00, on track to First Class Honours.
- Achieved Dean's List for AY 23/24 Semester 2.

Security Certifications

- OffSec Certified Web Expert (OSWE)
- OffSec Exploit Developer (OSED)
- OffSec Certified Professional (OSCP)
- Certified Red Team Expert (CRTE)
- Certified Red Team Operator (CRTO)

EXPERIENCE

Bug Bounty and Proactive Testing Intern, PayPal, Singapore

May 2025 – Present

- Triageed vulnerability bug bounty reports from HackerOne and objectively assess risk of each issue to PayPal.
- Contributed to ticket audit efforts leading to increased response efficiency of 96% on HackerOne.
- Partnered and collaborated with internal stakeholders to fix issues and fulfil vulnerability lifecycle within SLAs.
- Conducted penetration tests as part of proactive testing efforts to identify recurring security issues.
- Researched and mitigated new security threats such as TapTrap targeting PayPal's Android application.
- Created automation solutions using Jira and Python to increase workflow efficiency of team.

Security Engineer Intern, Ascenda Loyalty, Singapore

May 2024 – Aug 2024

- Conducted penetration testing and source code reviews for Ruby and TypeScript codebases across 6 microservices in both front-end and back-end.
- Identified over 20 security vulnerabilities, including several High-severity issues such as Account Takeovers.
- Collaborated with software developers to identify and remediate security flaws as per vulnerability lifecycle.
- Developed and integrated an automated Dynamic Application Security Testing (DAST) solution using OWASP ZAP, Bash, and JavaScript packaged in a Docker image, into an existing Jenkins CI/CD pipeline.
- Wrote Kubernetes configuration files to deploy newly implemented security engineering solutions.
- Created an intentionally vulnerable machine with Ruby on Rails, Docker, and Kubernetes for security training.
- Wrote about security on company blog, found here: <https://loyalty.dev/posts/rails-to-the-cloud>

Attack Simulation Intern, Cyber Security Agency of Singapore, Singapore

May 2023 – Aug 2023

- Co-developed detection engineering and purple team workshop for the Operational Technology Cybersecurity Expert Panel (OTCEP) 2023.
- Created Caldera adversary profiles for APT groups like LockBit 3.0, leveraging TTPs from threat intelligence and MITRE ATT&CK Framework.
- Built an enterprise Active Directory cyber range environment with 6 virtual machines using Vagrant, Bash, and PowerShell for running adversary profiles.
- Deployed and configured tools such as Splunk and Procmon in cyber range for detection engineering lesson.

PROJECTS

Security Blog

- Documented cybersecurity knowledge gained from courses, bug bounties, CTFs and independent study in areas such as malware development.
- Authored partially or fully disclosed bug bounty reports.
- Published blogs on various security topics used by cybersecurity news outlets such as TheBleepingComputer.
- Blog is available at: <https://rouvin.gitbook.io>

CTF Competitions

- Achieved the highest local (Singapore) rank of 2nd and attained Elite Hacker status on HackTheBox.
- Ranked 73rd in HackTheBox Global Cyber Skills Benchmark CTF 2025 under team PayPal.
- Completed over 350 machines on Proving Grounds Practice and HackTheBox with writeups for all.
- Hundreds of writeups written are available at: <https://rouvin.gitbook.io/writeups>

Bug Bounties

- Actively hunting on VDPs and Bug Bounties on BugCrowd and YesWeHack.
- Submitted valid reports to organisations such as the Dutch Government and NUS that were resolved.