George Muscat

📍 Sydney, Australia

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Education

Undergraduate
University of New South Wales

📅 2021 — 2024   📍 Sydney, AUS

B.Sc. Computer Science (Security Engineering) - Distinction

Experience

Software Security Engineer
Asontu

📅 July 2024. — Current   📍 Sydney, AUS

Software Security Engineering Consultant

- Pitched, prototyped, designed and developed automated testing and deployment infrastructure using Golang, Python, Kubernetes and Git. Introducing automation and reliability, **eliminating a manual and mistake prone process**.
- Participated in **major incident response as an on-call engineer**. Lead the technical investigation, while maintaining regular and clear communication to non-technical leadership.
- Designed and built a collection of **MCP servers** and an accompanying **FastAPI** server, providing tooling that enabled **fine-tuned AI model** integration with internal customer systems.
- Entrusted with sole responsibility to roll out a ZTNA solution across a large organisation, ensuring **zero downtime for end users** through phased deployment and proactive testing. Additionally, **built automations in Python** to detect, manage and respond to outages, reducing overall response time and increasing reliability.
- **Mentored a junior engineer**, providing guidance on technical skills, and best practices in security engineering.
- Built vulnerability reporting tools, combining and cleaning multiple data sources using MySQL, Pandas and PowerBI. Enabled leadership to **derive clear and actionable insights** regarding the organisations vulnerability management.
- Received a **promotion from graduate level after 5 months** due to excellent performance in a client facing role and demonstrating advanced technical knowledge.
- **Led graduate program interviews**, designing technical assessments and evaluating candidates for both technical and cultural fit.

Casual Academic
UNSW

📅 Sep. 2022 — Dec. 2024   📍 Sydney, AUS

Course Administrator for ENGG1811 (Computing for Engineers)

- Managed 15 academic staff and coordinated over 350 undergraduate students per term.
- Responsible for setting up and maintaining course infrastructure, with technologies such as Linux (Debian Server), Bash, Python, PHP, Docker and CGI.

Tutor for COMP6443 (Web Application Security) & COMP1531 (SWE Fundamentals)

- Taught classes of ~25 students in SWE Fundamentals and Web Application Security. This includes communicating technical concepts to low level technical individuals, as well as providing feedback and debugging help.

Projects

Self-hosted, bare metal Kubernetes cluster
Operate 3 node kubernetes cluster on Talos, hosting a variety of workloads. Experimented with various highly available system designs and components, including MapReduce and Raft implementations.

sshnoop - A SSH hijacking tool
Written in Rust, sshnoop uses ptrace to intercept all data transmitted to an ssh session. Sshnoop also writes data to the ssh session using IOCTL. Source code can be found here: https://github.com/GeorgeMuscat/sshnoop

Locked Shields 2024 & 2025 - NATO CCDCOE Wargames
Lead the Australian incident response team in a simulated cyberwarfare exercise organised by the NATO CCDCOE. Responsibilities included liaising with non-technical members and maintaining clear communication in a fast and stressful environment. https://ccdcoe.org/exercises/locked-shields/