CALLUM LAWSON-SMITH

HTTPS://CALLUMLAWSONSMITH.COM

PERSONAL STATEMENT

I'm a software engineer with a passion for designing, developing, and deploying clean solutions to complex problems.
I spend my spare time reading both fiction and non-fiction books.
My side interests are reverse engineering malware and low-level security.
Occasionally I enjoy spending time on Hack the Box to keep up to date with security threats.

TECHNICAL SKILLS

- **Python** - Used in various projects to interact with low-level system objects, networking, databases, etc.
- **Javascript** - Entry-level knowledge
- **React.js** - Entry-level knowledge
- **HTML5/CSS3** - Used to build my website
- **Object Oriented Programming (OOP)** - Constructors, Abstract Base Classes, Mixins, Inheritance, Encapsulation, Polymorphism, Decorators
- **Git/GitLab** - Version control, branching, CI/CD, branching, merge requests/code review
- **Docker** - Used to automate test pipelines
- **Agile** - Standups, KANBAN, iterative development, continuous delivery
- **Software Documentation** - Written extensive user and developer documentation using markdown
- **x86 Assembly** - Reverse engineering, malware analysis, and binary exploitation
- **Operating Systems** - Linux Kernel, Processes, Syscalls, etc.
- **Networking** - TCP/IP Stack, OSI model, LANs, SSH, etc.
- **SELinux** - Written basic policies
- **Virtualisation** - Used for SIT tests, manual testing, etc.

EXPERIENCE

SOFTWARE ENGINEER • BT • AUG 2019 - JUNE 2020

Worked as part of a team to design and developed robust, scale-able, and secure cyber-security software.

Developed Python packages and modules which used interfaces to network data, system/hardware information, and databases on a Linux system.

Employed object-oriented programming (OOP) principles such as classes, abstract base classes, inheritance, mixins, dunder methods, decorators, etc., to emphasise code reuse, manage design complexity and maintainability.

Leveraged Git in tandem with GitLab to utilise distributed version control, continuous integration and development (CI/CD), and systems integration (SIT) and unit test infrastructure.

Maintained customer relations, providing strategic direction and design of the project to meet delivery targets.

EDUCATION

BACHELOR OF INFORMATION TECHNOLOGY • 2018-2019 • MACQUARIE UNIVERSITY

Majoring in Cyber Security, this course covered the fundamentals of computer science with an emphasis on security; namely cryptography, cybercrime, security engineering, etc. Participated in Christophe Doche's COMP350 course, which is a specialised unit that taught penetration testing. Covered many aspects of security, e.g. binary exploitation, web security, Hack the Box, etc.

SELF LEARNING

- Serious Python - *Julien Danjou*
- Practical Malware Analysis - *Andrew Honig and Michael Sikorski*
- Introductory Intel x86: Architecture, Assembly, Applications, & Alliteration course - *Open Security*
- The Life of Binaries course - *Open Security*
- Hack the Box: https://www.hackthebox.eu/home/users/profile/25995

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