

CALLUM LAWSON-SMITH

[HTTPS://CALLUMLAWSONSMITH.COM](https://callumlawsonsmith.com)

PERSONAL STATEMENT

I'm a software developer 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** - Basic knowledge
- **React.js** - Entry-level knowledge
- **Linux/BASH** - Used Arch on my dev machine
- **HTML5/CSS3** - Used to build my website
- **Object Oriented Programming (OOP)** - Constructors, Abstract Base Classes, Mixins, Inheritance, Encapsulation, Polymorphism, Decorators
- **Git/GitLab** - Version control, feature/trunk-based branching, CI/CD, merge requests/code review
- **Docker** - Used to automate test pipelines
- **Agile** - Standups, KANBAN, iterative development, continuous delivery
- **Software Documentation** - Wrote 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** - Wrote policies for customer software
- **Virtualisation** - Used for SIT tests, manual testing, etc.

EXPERIENCE

SOFTWARE ENGINEER • BT • AUG 2019 - JUNE 2020

Worked in a close-knit team to design and develop robust, scalable, and secure cyber-security software for government.

Developed Python packages and modules which used APIs 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 emphasize code reuse, manage design complexity and maintainability.

Employed distributed version control through Git, and utilised GitLab for continuous integration and development (CI/CD), systems integration test (SIT) and unit test infrastructure.

Maintained customer relations, providing strategic direction or recommendations, alongside design decisions of the project to meet delivery targets.

CERTIFICATIONS

BACHELOR OF INFORMATION TECHNOLOGY MACQUARIE UNIVERSITY

This degree covered all the fundamentals of computer science including software engineering, cyber security, networking, databases, and operating systems.

I spent a large portion of my free time studying topics beyond the curriculum, mainly involving malware analysis and reverse engineering.

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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