

# CALLUM LAWSON-SMITH

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## PERSONAL STATEMENT

Software developer with a passion for designing, developing, and deploying clean solutions to complex problems. Strong advocate of minimalism and reduction of complexity.

Spare time spent reading books (fiction and non-fiction), reverse engineering malware and low-level security, or on *Hack the Box* to learn about new kinds of security threats.

## TECHNICAL SKILLS

- **Python** - Used in various projects to interact with low-level system objects, networking, databases, etc.
- **C** - Experience with Linux kernel module development
- **Linux & BASH** - I use Arch
- **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, sandboxing

## 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 a confidential client.

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.

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

In the final year, was accepted into and completed a selective unit focusing on penetration testing.

## REFERENCES

**Cathy Guarino - Line Manager at BT**

**Sean Jeffries - Tech Lead at BT**

**Campbell Wright - Coworked at BT**

\*Phone numbers available upon request.



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