

# SAMUEL CLARK

## Software Engineer

### CONTACT

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### TECHNICAL SKILLS

#### Programming



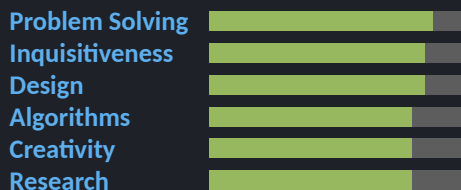
#### Operating Systems



#### Software & Tools



#### Other Skills



### GENERAL SKILLS

Agile Scrum Designer UX React  
Versatile Creative Unix Containerisation  
Material Design Continuous Integration  
Test Driven Development Quick Learner  
Full Stack Researcher

### HOBBIES

🎮 - Video Games 🎧 - Music  
📺 - Research </> - Coding  
🥋 - Jiu Jitsu

### PROFILE

My combined experience in UI design and security products has given me the ability to have great attention to detail, not only in terms of design but in terms of code quality and security. I am very passionate about coding and love to get creative and solve problems using my skills. I have always been eager to learn about new technologies and enjoy researching complex fields.

### PROFESSIONAL EXPERIENCE

#### Software Engineer

📅 August 2018 - present | 📍 Ivanti (previously Pulse Secure), Cambridge

I started out at Pulse Secure doing an internship as a part of my University course for a year. During this time I work primarily on a **frontend** UI component library, called **PSUI** built using **React** and following Google's **Material Design** guidelines to create exquisite and intuitive components. The success of my work led to the library being used in developing the future product line within the company. I was taken on as a remote worker for my final year at University where I worked in a newly built UI team based on the work I had accomplished as an intern.

At the end of University I was taken on full time working on various products in the **full stack**. I initially worked on the implementation of existing product into a new **SaaS** platform known as **PZTA** which utilises the **PSUI** library I had previously developed. I was able to strengthen my skills in **Python** and **JavaScript** while integrating the products and developing the new platform. During this time I was able to get industry experience with other technologies including **Go**, **Docker**, **Kubernetes**, **Jenkins** and **React Redux**.

I have worked to develop and maintain a Web Application Firewall known as **vWAF** which has led me to become well versed in **best practices** and **security protocols** in order to maintain the integrity of the product. This have given me professional experience working with technologies including **Python**, **PyTest**, **Selenium**, **Make** and **Docker**. I have worked on the optimisation of the build systems to improve the hardware utilisation of the product.

● JavaScript ● Python ● HTML ● SCSS ● C++ ● Go ● SQL

#### Computer Technician

📅 April 2011 - September 2016 | 📍 SES Computers, Southend on Sea

Maintaining and repairing various machines and servers.

### EDUCATION

#### BSc, Computer Science with Year in Industry

📅 September 2016 - July 2021 | 📍 University of Kent, Canterbury

##### First Class Honours

At University I was able to learn about lots of programming paradigms, including **functional** and **object oriented** programming.

Some notable modules I took include:

**Embedded Computer Systems & Internet of Things**, these modules gave me experience using **C++** in a embedded environment and taught me about the optimal utilisation of system hardware.

**Programming Languages: Applications and Design**, in which we were challenged to solve problems in multiple different languages including **Rust**, **Haskell** and **Java** to utilise different aspects of each language and look at the different ways in which problems can be solved;

**Algorithms, Correctness and Efficiency**, that educated me on the use of various algorithms and the practice of creating efficient algorithms to solve complex problems;

**Introduction to Intelligent Systems**, which taught the key principles of artificial intelligence and algorithms including **genetic algorithms** and **iterative deepening**;

**Cognitive Neural Networks**: which was a complex and interesting module, with first half looking the human brain and how those systems work and the second was exploring implementations of some concepts of the brain into **neural networks**;

**Computer Security and Cryptography** was my favourite module which I was able to learn greatly about the key concepts of computer security and cryptographic algorithms;

**Research Project**, this was a dissertation project which I chose to research the field of **quantum cryptography** to produce a research paper titled "Vulnerabilities In Messaging Apps To Quantum Attacks". I explored the cryptography algorithms used in various popular messaging apps, to determine how susceptible they are to attacks utilising quantum algorithms such as **Shor's algorithm** and **Grover's algorithm**. I thoroughly enjoyed the learning experience and discovery aspect and plan to add the research I have done.

● Java ● C++ ● JavaScript ● Rust ● Haskell ● Erlang ● LaTeX ● SQL ● PHP

### PERSONAL PROJECTS

#### Research Project | 🌐

Research on vulnerabilities in messaging apps to quantum based attacks.

- Plans to develop on existing research.
- Written using LaTeX.

● LaTeX

#### Freddo Bar Price Checker

Uses selenium to scrape the web page of popular supermarkets and display the cheapest place to buy a Freddo bar.

- Uses selenium for scraping web pages.
- Plans to expand project to include price history and compare prices to other currencies and the housing market.

● Python ● JavaScript ● HTML ● SCSS

#### JiuJitsu Syllabus | 🌐

Clear and concise documentation website syllabus with examples and notes.

- Written using React and Storybook.

● JavaScript ● Markdown ● HTML ● SCSS

#### Random Projects | 🌐

I have lots of creative projects implementing mathematical algorithms and visualising them using JavaScript libraries such as P5.js.

Some other projects I like to do are usually focused around games and problem solving for them.

You can see more projects I have worked on on my **projects** page.

● Java ● JavaScript ● HTML ● SCSS