

## PROFESSIONAL PROFILE

As an experienced freelance software and web developer with in-depth knowledge of multiple programming languages, I have completed a wide variety of projects ranging from apps to artificial intelligence, from software to sudoku solvers. My key attributes are my refined problem-solving ability, stemming from my success in national maths competitions, for example, the British Mathematical Olympiad, as well as excellent time management skills and my robust organisation.

I can work either in a team or independently and I understand the need for communication throughout a project, which I have developed through working on the IoT project. I am fascinated with the way in which the programming world changes, and at such a fast rate. I find it important to keep up to date with the latest technological advances.

## Qualifications

- Amazon Web Services Certified DevOps Engineer Professional
- Amazon Web Services Certified Developer Associate
- Cert 5 Freelance Software Developer

## Programming Skills

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|------------------------|---------------------|-------------------|
| • Software development | • Web development   | • Installers      |
| • Python               | • Responsive design | • Testing         |
| • Java                 | • HTML, CSS and JS  | • App Development |
| • C++, C# and C        | • jQuery            | • OOP             |
| • JavaScript           | • PHP and AJAX      | • VBA and Excel   |
| • Debugging            | • SQL and databases | • Problem-solving |
| • Docker               | • Bootstrap 4       | • Shell Scripts   |
|                        | • AWS               | • Git             |

## PREVIOUS PROJECTS

### GoProgram (2019-2020)

I run [GoProgram](http://GoProgram.co.uk), a successful, donation-based micro-business, that showcases open-source programming projects. It contains a wide variety of programs, highlighting different aspects of programming. The website is frequently updated to bring viewers new projects and keep up to date with the newest standards. I have coded everything on the website from scratch and it is free to use or modify any of the code. The web pages have been written using HTML, JS and CSS to create a unique finish with custom features.

### IoT Project Hot-Desking Project (2018)

I worked on a team in a project that aimed to make hot-desking more comfortable and efficient. The project involved working with hardware, as well as software to implement code on a Raspberry Pi to run the Tinkerforge hardware stack. The project was sold just after I finished working, which was a huge achievement for the entire team, and reflected the work that had gone into it.

## Casino Simulator (2020)

I wrote a Monte Carlo Simulation in JavaScript, which was then turned into a web application for [Team Casino's website](#). The simulator ran 25,000 to predict the results of a wide range of offers that casinos advertise, aiming to advise whether you should accept the offer. The JavaScript code was object-oriented and included basic encryption to prevent sharing of carefully researched information. The webpage was designed using Bootstrap 4 and fitted the design provided. Additionally, jQuery animations made the page more interactive, alongside the responsive design and mobile friendliness. This received huge praise on Facebook after it was released, receiving a large number of likes, loves and positive comments, which reflect the quality and of the finished project.

## Email System (2020)

I worked with another developer to create a bulk email sender for an education recruitment company to alert local councils and schools about what they should do or change to help children with special needs. The program reads the email addresses and names from an Excel spreadsheet and then sends corresponding email addresses to the recipient with a personalised greeting. The program is used on a regular basis to share important messages from [Active SEN](#).

## Responsive and Ready (2020)

I created a web application hosted on AWS to aid with virtual teaching and learning. The project included high standards of automation and security to increase the ease of development and production, without risking sharing personal data. The backend was a REST API, written in Python and interacting with a MySQL database while the frontend consisted of a Bootstrap 4 design written in HTML and CSS. The project was a huge success, which greatly improved the quality of learning for students across the country.

## Crime Mapping Web Application Collaboration (2020)

I worked with another developer to create a web application to map crime in the UK. The software itself runs from an Angular.js server, using a Police API to collect data about crimes in an area, as well as Email.js to then send emails to a specified email address about crimes in an area. This was a great success and is currently being used to evaluate levels of crime in different parts of the UK.

## AWARDS RECEIVED

### Challenges and Olympiads (2012-2019)

Across the years, I have been a high achiever in maths challenges and Olympiads. Every year, I have achieved a gold award in the maths challenge and then gone on to achieve either merit or distinction in the follow-on Olympiad, scoring full marks in one of last year's challenges and working hard so that I do the same again next year. These challenges and Olympiads improve my problem-solving ability, and my commitment, as training for them requires hours of hard work and dedication. Additionally, I captained the winning team in the Maths Feast Competition, which required coordination and leadership to beat eleven other teams. To practise for upcoming competitions and Olympiads, I am enrolled in the United Kingdom Mathematics Trust mentoring scheme which allows me to solve challenging mathematical problems and share my solutions with an external mentor.

## **VOLUNTEERING**

### **Volunteering at Scope Charity Shop (2018-2019)**

I have spent over 140 hours volunteering at the Scope charity shop. At first, I was responsible for hanging up clothes or sorting cards. However, as I would carry out tasks quickly and efficiently, often going above and doing extra to what was required, I am now responsible for serving customers and setting up displays. Through Scope, I have improved my ability to interact with customers and my team-working skills, as well as refining my time management and organisation across a different environment. It is extremely rewarding knowing that you are making such a large difference to people both in and outside of the local community.

### **Volunteering at the Coffee Morning (2017-2019)**

I regularly help at the coffee morning at my local church serving coffee and cake to (mostly elderly) local residents. My tasks include setting up tables and chairs, making tea and coffee, serving cake, interacting with customers, as well as washing and drying up. As I am the person who volunteers most frequently, I am often trusted to lead the operation, which can often be challenging. However, it has taught me to be organised and to work as part of a team to continue the smooth running of the service.

### **Primary School Summer Sports Camp (2018)**

I assisted the sports coach to run various sessions for children in year 1 to year 6. I was also responsible for running my own sessions which required me to set up and plan activities to make sure that the children had fun in a safe environment. This required punctuality, commitment and, at times, stamina to make the sessions as entertaining and engaging as possible. I could tell by the faces of the children that they were enjoying these sessions, and many came back the following year.

## **HOBBIES**

One of my most passionate hobbies is cross country running. I train as often as I can, and I race at most weekends, as I am part of the club South London Harriers. When there is not a race, I do the parkrun, of which I have completed 134. My fastest parkrun is 16:48, which I completed at Dulwich on New Year's Day. Through cross country, I have learnt to be committed and manage time well across sport and academia.

Another sport that I play is squash. I am in the 1<sup>st</sup> V, and I train twice a week. Squash is a lot faster paced than most sports, so it requires fitness, as well as skill, to outmanoeuvre your opponent. I went on a squash tour to Poland to train at the world's largest squash club. Squash teaches me to be determined, because it is always possible to win, whatever the score says.

While not everyone regards chess as a sport, I play in the 1<sup>st</sup> VI, and my ratings are 145 (rapid) and 12 (standard). Chess teaches me about strategy and creative thinking, while the long games I play (sometimes over 3 hours) improve my concentration.

In my spare time, I play the violin in an orchestra and a strings group at Grade 7 standard. I find that by playing the violin, you hear the different voices of a piece, rather than just one part. By playing the violin, I have learnt the need for perfection and how to practise efficiently and effectively.