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Problem solving and creativity are my main strengths that I incorporate into computer science, which I'm studying at the University of Nottingham for my second year. I wish to apply these to the real world, with aspirations to bring innovation to large companies that I've been inspired by such as Square Enix and the Lloyds Banking Group as well as conduct more ambitious personal projects.

## **Institution**

**University of Nottingham**

**2019 - Present**

- First Year Modules

- **Mathematics for Computer Scientists (86%)**
- **Programming and Algorithms (91%)**
- **Systems and Architecture (95%)**
- **Computer Fundamentals (87%)**
- **Introduction to Software Engineering (86%)**
- **Databases and Interfaces (78%)**
- **Fundamentals of Artificial Intelligence (72%)**
- **Programming Paradigms (87%)**

**Nottingham University Academy of Science and Technology**

**2017 - 2019**

- A Level

- **Computer Science (A)**
- **Mathematics (A)**
- **Chemistry (B)**
- **EPQ (A\*)**

## **Extracurricular Qualifications**

**University of West London – London College of Music Examinations**

**2018**

- Oral Communication – Grade 4

- **Awarded Distinction**

After taking part in an extracurricular activity in public speaking where I was trained to project my voice and speak fluently, an extremely useful tool for presenting ideas and communicating with teams, I took an examination in which I received a Distinction.

**United Kingdom Mathematics Trust**

**2017 - 2018**

- Senior Mathematical Challenge

- **Silver Award 2018**
- **Bronze Award 2017**

It has been advantageous, taking part in yearly puzzles organisations such as the UKMT have delivered, building-up experience in problem-solving by considering tools I have available, as well as thinking outside of the box.

**Ofqual**

**2017**

- BCS Level 2 ECDL Certificate in IT Application Skills (QCF)

- **Awarded Distinction \***

Utilising software is equally important as writing new software. The Microsoft software covered in the examination is essential for presentations and pitches I may need to deliver to teams.

## **Volunteering and Work Experience**

### **Mentoring and Support Work**

I've performed mentoring work in several gaming communities, using their official volunteering opportunities, making my expertise in conceptualising. When aiding someone with a task, I always discuss with them how the developers could make the situation easier for the players, as well as themselves in development and maintenance of servers and gameplay. From such discussion, I discover new strategies to game development and maintenance.

### **Lloyds Banking Group**

I took part in a work experience program hosted by Lloyds Bank, gaining insight on day-to-day problems and strategies at their branches in Nottingham. The experience inspired my interest to utilise my creative thinking to support businesses such as Lloyds function effectively, helping them pursue their principles of "Putting Customers First, Keeping it Simple and Making a Difference Together".

### **Supercell Community Forums**

Until its closure, I worked under the official title "Game Specialist" on the Supercell Community Forums, offering support for the mobile game "Clash Royale". I would answer questions by tactfully handing sources and construct to discussion. My main focus was in the "Ideas and Feature Requests" section where I gained insight from the players of the game and worked with the community to produce several game-changing concepts and new card ideas, some of which were forwarded to the developers, and praised by their moderators for creative thinking.

## **Skills Summary**

### **Programming Capabilities**

Python: In eight years I've demonstrated fluency in writing algorithms, writing programs in both procedural and object-oriented paradigms for a personal project where I developed a turn-based battle game, which I later enhanced, with the alternative object-oriented approach, which became my A-Level project.

C and Java: I've broadened my span of languages by using Java for heavily object-oriented programs and C for heavily procedural programs. The flexibility of languages allows me to address problems in the most simple and efficient manner. For example, writing Minesweeper in ARM, Python and Java has shown that Java is the most suitable language for the task.

ARM and HDL: Where necessary, I have the knowledge of particular hardware instructions for different chipsets, allowing me to work with compilers to optimise higher level code.

HTML, CSS, JavaScript, SQL and PHP: I've performed many web-production projects where the four languages are required to produce all of the functionality required to allow user interactions with databases.

### **Problem-Solving**

I've successfully implemented sort algorithms such as merge and sleep, behaviour simulations such as Conway's Game of Life, games such as Minesweeper and Noughts and Crosses as well as algorithms to solve calculations and financing for mock companies in academic projects. I'm confident that I can simulate or even automate any given system, with background on its functionality.

### **Communication**

I've experienced working in a team for an academic group project. I was able to take leadership role by offering supporting resources, directing and splitting tasks even among members as peer-programming to assist them in their weaker areas. My general aim when working with others, is to provide support as well as performing my own share.

## **References**

References available on request.