Dylan Devalia

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PERSONAL STATEMENT

I am a computer science graduate from the University of Nottingham where I achieved a first-class degree. I also have real-world experience at various notable companies and am currently looking for a software engineering graduate scheme to begin my career.

EDUCATION HISTORY

University of Nottingham — *Degree* — Sep 2016 to Jul 2018

First

Notable Modules

- *Algorithms Correctness and Efficiency*
- *Artificial Intelligence Methods*
- *C++ Programming*
- *Computer Fundamentals* (C Programming)
- *Databases and Interfaces* (Websites)
- *Individual Dissertation*
- *Mathematics for Computer Science*
- *Mobile Device Programming* (Android)
- *Programming Paradigms* (Java/Haskell)
- *Software Engineering Group Project*
- *Software Maintenance*
- *Systems and Architecture*

Brampton College — *A-Levels* — Sep 2013 to Jun 2015

Mathematics	A
Further Mathematics	C
Computer Science	B

TECHNICAL SKILLS

Proficient in:

- *C, C++ and Java Programming*
- *MySQL / Data Manipulation*
- *Python Scripting*
- *VisualBasic.NET and C# Programming*
- *Web Programming* (JavaScript, CSS, PHP)

Knowledge of:

- *Haskell Programming*
- *MATLAB*
- *Perl Scripting*
- *Windows/Linux and Macintosh OSs*

WORK EXPERIENCE

Citigroup Global Markets — Junior Technology Intern — Jun 2012

Generation of ad-hoc reports requested by business users where the data was extracted directly out of a Sybase database using SQL

Development of shell scripts (using Unix shell) to move and store data files based on archive rules

Tradition Brokers — IT Technician / System Admin — Jul 2013

Provided face-to-face technical support to front and back office users. This included solving of hardware issues, networking problems, and resolution of software bugs through a ticket-based issue tracking system

Schroders plc. — Software Quality and Testing Intern — Jul 2013

Build, demo and test new enterprise internet systems for company communications including announcements and general information sharing.

OTHER ACHIEVEMENTS

Greenhouse Monitoring System

For my A Level Computer Science project, I designed and built a system to monitor and control a greenhouse. Hardware composed of a Raspberry Pi as the main system controller, using multiple external sensors to gather environmental data including light, humidity and temperature. Software used object orientated Python and utilised MySQL to store, archive and display the sensor readings.

The system triggered alerts to warn the user if a sensor boundary was breached – such as too high or low temperature. Alerts were communicated to the user via a Twitter message, SMS or e-mail. The system was also capable of producing graphs over user-defined time periods to provide statistical information for predicting trends.

Hackathons

I have currently attended four hackathons all over the UK. The two most notable projects that myself and my team worked on both utilised a new piece of hardware we were interested in call *Leap Motion*. This new innovative device is a small peripheral which allowed getting motion data from hands waving above it in 3 dimensions, as well as detecting rotation and several hand poses, such as closed fist or open palm.

The first project was an endless runner styled game in which the player controlled a starship using their hands and could fire upon a never-ending barrage of missiles heading towards them. The main game ran on a node server, running on a Qualcomm DragonBoard, all built using JavaScript on the web. This allowed us to have multiple computers connect to the website and extend the canvas so the player could see the missiles arriving from further away.

The second project was a 3D web-game where we utilised two *Leap Motion* devices. Using a three-dimensional JavaScript library, we created terrain, obstacles and a tank model where one player controlled the movement of the tank and a second player would control the swivel and firing of a turret on top. Using this cooperative system, both plays had to work together to achieve their goal of surviving again falling meteors and obstacles.

The first project won first place at the hackathon as well as Qualcomm's award for best project using the DragonBoard, and the second project won Capgemini's innovation award. I love the experience and atmosphere of attending hackathons and plan to go to as many as possible in the coming year.

Dissertation

During my final year at the University of Nottingham, I researched, planned, and developed a genetic evolutionary artificial intelligence to the board game The Royal Game of Ur. I built the game from the ground up in a bespoke engine in Java which used a custom game loop, state-based architecture, and utilised drawing to a canvas as the visual component.

The artificial intelligence uses machine learning through a genetic algorithm to learn the game and developed various playstyles. The full writeup is available on my website.

Music

Achieved Grade 5 on Piano

Sang with the Royal Philharmonic Orchestra in a choir in 3 separate concerts

Misc.

Maths Challenge (Expert) Sports Leadership Award

Created and moderate a forum page with a community of over 50,000 as well as a VoIP server with over 7,000 members

REFERENCES

Available upon request