

# Matthew Palmer - CV

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Second year Applied Software Engineering student at Cardiff University

Second-year Cardiff University student studying Applied Software Engineering. Seeking summer employment.

## University

I am currently a student at Cardiff University, in my second year studying Applied Software Engineering. I have gained many skills while working on projects throughout my first year. My course is coursework based so it is important that I manage my time, making sure I'm able to complete the work on time. I also have worked on projects as a group where we had to create a finished application by the end of four weeks. I gained teamwork skills and time management by planning and discussing with members of the group how we would complete the task with the time provided. We managed the project in a Scrum agile way, which is like how Pixar develops its films. We would set deadlines for tasks weekly to keep track of our individual and team progress, and being agile we would take on a range of tasks meaning we would develop our skills in all aspects of the project instead of focusing on only one aspect each, by working in this way I was able to change what I was working on many different aspects of a project meaning I have a wider variety of skills.

## Technical Skills

### Technology Summary

Python, Flask Framework, Java, Android, SQL lite, SpringBoot Framework, XML, MySQL, NoSQL, MongoDB, HTML, CSS, JavaScript, Ajax,

Use of; Bash, Linux, OpenStack, Terraform, Vagrant, Jenkins

### Python – Confident

I have been working with python for the past year, in a group project in university we developed a website backend using the Flask server which utilised a database and the capability of loading in website templates and would allow searches into the database with the results being displayed dynamically on the site. In my personal work I have utilized a python program running on a raspberry pi to control an LED light strip which could also be accessed from a web interface to turn the lights on and off and to change the colours.

### Java & Android – Very Confident

Using Java, in a group project we have created a SpringBoot web application for a facilities manager, this is a system that would be able to serve questionnaires to a website and save the results in a MySQL database, the program would then be able to calculate a score based on the questionnaires that would help facilities managers of an organisation be able to measure the many aspects of the company, and compare in the future based on changes.

Written in Java, in a group project we created an Android application which was to help university students learn more about places around the university, by using a Bluetooth beacons the app would be able to identify where the was and then load relevant information from the applications SQLite database to the user in a clean simple application.

### MySQL – Confident

This year I have been learning all aspects of MySQL including the wide variety of queries as well as design consideration such as planning and the need to normalize a database but also the possible need to de-normalise certain aspect of the database to improve the performance of regularly searched for data. We have using MySQL as our primary database source for group projects. I have been accessing MySQL from a GUI using MySQL workbench and from the command line in windows and Linux.

During the last semester I have been learning base security and the importance of database security to keep the confidentiality of the data and the integrity of the data.

### Non-SQL databases – Intermediate

Last semester I had covered the difference between SQL and non-SQL databases and the benefits such as faster queries with non-SQL databases, I also learned about MongoDB which is a popular non-SQL database. During my own time I have been using MongoDB for a personal SpringBoot application which is a To-Do list but by using a MongoDB database to be able expand my understanding and knowledge of the system.

### Operations and Deployment – Intermediate

During this semester I have been learning about the deployment aspect of Software Engineering where we have been deploying our SpringBoot applications in a Linux system, we have used Vagrant to deploy the database and SpringBoot project onto a virtual machine on our laptops. Using the universities OpenStack platform, I have been learning about hosting applications in the cloud and using Terraform we can deploy new instances and set up the server using scripts automatically. I have also using Jenkins which automates the build process on a change, which can test and check the code, then build and deploy the projects whenever there was a new commit to the project repository.

## Qualifications

### GCSE

Information Communications Technology	A
Design and Technology: Graphic Products	B
Geography	B
Biology	B
English Literature	B
English Language	C
Chemistry	C
Physics	C
Welsh	C

### A Level

Welsh Baccalaureate	A
Applied Information Communications Technology	A
Geography	C
Economics	D

## Experience

I have been a part of the technical team for a Drama group that performs Christmas Pantomimes and summer variety shows, I oversaw the stage lighting having the learn how the system works and create preprogramed scenes with an eye for detail. On performance nights I also assisted the front of house staff by engaging with customers by collecting tickets and directing them to a seat. I had to be alert during the show for lighting ques, for adjusting light positions based on the performers location and be prepared for anything going wrong.

For many years, I have been a part of a professional drama group where we would perform large productions at a Theatre. I have learnt many skills from doing this which include public speaking, I am now more confident and able to speak more clearly, I am also able to work within a group and follow directions and instructions.

Every year I take part in a food parcel packing for Raven House Trust in Newport which is a charity that helps support those in need in South Wales. We work as a group to productively pack boxes with canned good and food essentials to donate to people to need it most.

I've had the experience of working with customers working with others when I went on Work experience at South Wales Computer Repairs where I worked on many different computers, laptops and printers, I had talked to customers on the phone and in person to discuss their individual needs.

I have undertaken work experience at my High School where I worked with the ICT technician, learning about the technology used within the school and how the network has been set up as well as, how is it used effectively with the systems and software. I have also been a part of a team testing and experimenting with new software to see how they will be able to be implemented into classes. I enjoyed this work experience as I could see how software developed specifically for a task and I was helping teachers and students to complete tasks that would otherwise be hard to achieve.