

Josh Smith

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Overview

I am a Software Engineering student at Aberystwyth University looking for a challenging role for my year in industry. I enjoy solving more complex problems and challenging myself to learn and improve. As I enjoy a challenge, I chose to do a Haskell module which was a completely new programming paradigm to what I had done before, however I took an interest to the language and came out with 88% in the module.

Skills

Programming Languages	Python, Java, C++, Haskell, C	Operating Systems	Linux, Windows
VCS	git, Subversion	Other Technologies	BluetoothLE, VirtualBox
Databases	Postgresql, MySQL		

Examples of these skills can be found below in the Projects section.

Personal Projects

All of these projects *and more* can be found through my github at www.github.com/qinusty

2016 Telnet Game Server (Group project) - Python.

This was a group project I was involved in over the Summer during my Cyber Exposure course. We were put into groups of four and told to make a modular project where everyone could get involved, regardless of prior programming experience. It was a 3 day project and has 6 completed games playable from a telnet client. My job was to implement multi-threading, sockets and JSON serialisation to allow the games to run smoothly on the server and have all of the functionality requested by my group members.

2016 Crypt-Chat - Python, Postgresql, git.

This project follows a client server model for an end to end encryption solution for messaging, this works via RSA Asymmetric key encryption where clients generate their keys and provide the server with a public key to pass onto other clients. The server uses a postgresql database to store the users name and password hashes for persistent accounts.

2016 Multiplayer Battleships - Python.

This project was a small networked project for me to get to grips with python sockets. The project allows two users to connect and take turns against eachother playing console battleships.

2016 IRC BlackJack Bot - Haskell, git.

I started this project as I began to read through 'Learn you a Haskell for great good' to help me reinforce what I had learnt during my first semester studying Haskell. Messaging the bot when hosted allows you to play BlackJack against a dealer with a simple rule set. This project further interested me in Haskell and reminded me of how simple programs can be made.

Education

Aberystwyth University, Aberystwyth - Currently Studying

2015–present BEng Software Engineering.

First Year: 1st
Second Year: 1st

Aquinas College, Stockport

2013–2015 Computing, A Level, B.

IT BTEC, Level 3 BTEC, Distinction*.

Mathematics, A Level, D.

Stockport School, Stockport

2008–2013 **9 GCSE's A* - C, including Maths, Science and English.**

Interests

Programming I enjoy working on personal programming projects and often find myself learning new skills and sometimes entirely new languages. In my first year of University I was involved in the UK & Ireland programming contest (UKIEPC), the contest involved solving complex problems in teams of two or three.

Travel I enjoy traveling when I get the chance, most recently I traveled to Belgium in early 2016 with a few other students to attend an open source developer conference (FOSDEM). During my trip to FOSDEM I got to attend various interesting talks.

Experience

Year in Industry - DCA Design International Ltd - (July 2017-Present)

I am currently on placement working as a software engineer alongside Electrical and Mechanical engineers to develop products for a variety of clients in a range of sectors from Consumer to Transport. My role primarily involves me writing code for embedded systems while also including work with Bluetooth LE and android applications.

Summer Intern - HMG Cyber Exposure - (Summer 2016)

During my 6 weeks on the Cyber Exposure summer course I worked on a variety of skills, we started with building up virtual machines to set up a network configured to run various services such as DHCP, FTP and a Web Server. Further on into the course we touched on Social Engineering, Programming and Pen Testing. The programming section allowed me to work on a project which I mentioned above (Telnet Game Server) within a group of individuals with various backgrounds.

Student Demonstrator - (October 2016 - Present)

I am currently employed by the University to help first years in the Functional programming and Introduction to programming modules. This role has given me the opportunity to help first year students gain the knowledge and understanding they will need to complete their assignments.

Robotics club volunteering - (March 2016 - Present)

I have been volunteering at the local high school robotics club which has weekly sessions in our physics department where I help students between the ages of 11 and 16 work on a variety of robotics projects.

Student Ambassador - (March 2016 - Present)

I act as a student ambassador during University open days. During these days I am assigned to my department and manage a group of visitors while answering any questions they may have as well as ensuring they get to their activities on time.

References

Nathan Mitchell

Cyber Security Trainer

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Amanda Clare

Lecturer

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