Alex Usher

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EDUCATION

Imperial College London — London, UK
Master of Engineering in Computing, First Class. — *September 2019 – June 2023*

Trinity College London — London, UK
Associate's Diploma in Music Performance, Distinction. — *July 2017*

EXPERIENCE

Software Development Engineer Intern — June 2021 - August 2021
Expedia Group — *London, UK*
- Designed, developed and tested a NodeJS API to get health information about the team's services.
- Terraformed required AWS resources and set up a TeamCity pipeline for test and production environments.
- Integrated with AWS, Grafana and internal services to obtain troubleshooting and debugging information.
- Learned a lot about industry processes for maintaining large-scale tier 1 systems.

Software Consultant — November 2020 - March 2021
MoveMed - Imperial Junior Solutions — *London, UK*
- Communicated with clients to develop games for those suffering with reduced hand-eye coordination and dexterity.
- Developed a Unity game in C# with fluid difficulty that could adjust to the user's ability.
- Learned how to develop an application to a client's needs.

Website Development Intern — July 2017 - August 2017
Oracle Creative Media — *Southend-on-Sea, UK*
- Optimised OCM's newly launched website using SEO.
- Designed and implemented a template website for OCM to show clients as a sample of their products.
- Developed a website for a client with a custom CMS made in PHP.

PROJECTS

Squeezy | *Flutter, NodeJS, MongoDB* — May 2021 - June 2021
- Designed a flutter application for flat sharers using human centred techniques.
- Developed the application and backend in an agile, test-driven fashion.

WACC Compiler | *Kotlin, ANTLR, ARM11* — January 2021 - March 2021
- Developed and tested an optimising compiler for the WACC language in a group of 4.
- Worked effectively as a team to achieve a grade of over 95%.
- Learned much about compiler concepts, parser generators, symbol tables and optimisation techniques.

Website Manager - IC Symphony Orchestra | *HTML, CSS, JavaScript, Django* — April 2020 - Present
- Implemented a backend for the site using Django and SQLite.
- Designed new features at the request of the committee.
- Migrated the website to a new domain to make it easier for publicity to advertise.

Genetic Stocks | *C, Python, Machine Learning* — June 2020
- Implemented a genetic algorithm, optimising the hyperparameters of a multi-layer perceptron which predicted stock prices.
- Challenged to choose implementations of high accuracy that could be created within a short timeframe.

TECHNICAL SKILLS

Most Experienced: Java, Kotlin, Scala, C, NodeJS, SQL, Web Development, Data Structures
Comfortable With: Python, Django, Haskell, Flutter, ReactJS, C++, C#, PHP
Tools: Git, AWS, Terraform, Docker, LaTeX, ANTLR, MongoDB

NOTABLE ACHIEVEMENTS

Coldstream Guards Award | *Imperial College London* — April 2019 - June 2022
Ash Scholarship | *Imperial College London* — April 2019 - June 2022
National Youth Orchestra | *Clarinettist* — December 2017 - December 2019