Eugene Lin

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EDUCATION

2018 - 2022 | Imperial College London MEng Computing

• Year 2: 85.4% overall (Dean's List), with first-class honours in all modules and 93% in lab projects

• Year 1: 81% overall (Dean's List), with first-class honours in all modules and 85% in programming

2011 - 2018 Dunraven School

• A Level: A*A*A*A in Maths, Further Maths, Computer Science, and Physics

Work Experience

Oct 2020 - Undergraduate Teaching Assistant

Haskell, Kotlin, Java

Present • Worked as a laboratory assistant to aid first-year undergraduates in weekly assignments

• Provided me with valuable experience on understanding and debugging code written by others

Jun 2020 - **Netcraft** Oct 2020 • Assist

• Assisted in improving and automating client-facing fraud detection services written in Perl

• Identified patterns in historic datasets to detect resurfacing phishing attacks

• Deployed automated detection of money laundering recruitment across social media sites

· Optimised performance of internal pages by identifying expensive and redundant processing

Jul 2019 -Aug 2019 Fire Tech Camp

C#, Java, Python

• Worked as a Senior C#/Java/Python instructor, for groups of children aged 12 and up

• Received consistent positive feedback for my hands-on teaching style

PROJECTS

2020 | Matterialize C++, Kotlin, TypeScript

Utilised a research paper for background removal on a live webcam feed with OpenCV

• Assisted with implementation of RESTful API with Pistache for control through an Electron UI

• Implemented benchmarking suite for quantifying performance and quality metrics

2020 | EventKiwi TypeScript

Cross-platform application, built with the PERN stack and deployed on Heroku, for tracking events

• Started at Hack-a-project and iteratively designed with regular feedback from users and the RCA

ullet Integrated with **Azure** for user authentication and **AWS S3** for static resource hosting

2020 Optimising Compiler

Scala, ARM

 $\bullet \ \ \text{Full WACC compiler including parsing, semantic analysis, code generation, and optimisation in SSA}$

• Implemented a continuous integration pipeline with **Docker** and **Kubernetes** to automate testing

 \bullet Extended the language to support OOP, libraries, type inference, and metaprogramming

2019 A Pigment of Your Imagination

Java, Kotlin

С#

• Finalist for OxfordHack 2019 for the visuals and design category with a colouring book generator

• Implemented edge detection algorithms for clustering with k-means and noise reduction

• Assisted in integration of image processing in Kotlin with final **Android** application in Java

2018 Untitled Game

C#, PHP, JavaScript, Python

• Generated terrain with basic MST algorithms, and generated trees with a custom mesh builder

• Enemies in the game gradually improved with the use of a genetic algorithm

• Web interface for scores, as well as a custom library for low-latency IoT lighting over a LAN

2016 - 2017

Skype4Sharp

Only public .NET library for interacting with modern Skype chats (at the time)
Used in a publicly available Skype bot, with a reach of over 5,000 users at its peak

• Designed an open-sourced Skype bot, featuring a plugin manager, and a permissions system

SKILLS & INTERESTS

Programming

Comfortable with Scala, Kotlin, C# (including Unity), PHP, Python, TypeScript, and Java. Also have various amounts of experience in other programming languages, including Haskell, Perl, C, C++, and JavaScript. My public projects are available on GitHub. Also comfortable with markup languages such as LaTeX.

Linux

Proficient in using the Linux command line - including managing headless servers and networks. Experience working with **LAMP** stack. Able to use standard programming utilities such as version control, **CI/CD**, and containerisation. Comfortable with automating (and scripting) repetitive tasks.

Prototyping & Design

Explored different parts of prototyping, such as designing my own PCBs. Completed an additional course in prototyping at Imperial College London, which aided in developing my skills with electronics, as well as teaching me the basics of **CAD**.

Volunteering Organised and ran events held by the Department of Computing Society at Imperial College London as an Events Officer. Lead a team of volunteers for the largest student-run hackathon in the UK (IC Hack).