

# EUGENE LIN

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## EDUCATION

2018 - 2022	<b>Imperial College London</b> • Year 1: 81% overall (Dean's List), with first-class honours in all modules, and 85% in programming	MEng Computing
2011 - 2018	<b>Dunraven School</b> • STEP: Grade 2 in STEP I, and Grade 3 in STEP II • A Level: A*A*A*A in Maths, Further Maths, Computer Science, and Physics	Sixth Form, and Secondary School

## WORK EXPERIENCE

2019	<b>Fire Tech Camp</b> • 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 • Provided me with experience on debugging code written by others
2016 - 2019	<b>Tutoring</b> • Tutored children from Year 6 to Year 10, with a focus in mathematics • Improved communication skills, and practised how to explain challenging topics in simple terms
2015 - 2018	<b>Freelance Projects</b> • Occasionally took on clients for freelance work • Met expectations of clients through consistent communication, and flexibility to suggestions
2017	<b>Zodiac Media</b> • Assisted in updating a legacy e-commerce site running Magento (PHP) • Heavy use of version control for deployment, and Vagrant for web development

## PROJECTS

2020	<b>Optimising Compiler</b> • Full WACC compiler including parsing, semantic analysis, code generation, and optimisation in SSA • Implemented a continous integration pipeline with <i>Docker</i> and <i>Kubernetes</i> to automate testing • Extended the language to support OOP, libraries, type inference, and metaprogramming	Scala, ARM Assembly
2019	<b>ARM Project</b> • Implemented an assembler, and emulator for the ARMv6 instruction set • Designed custom hardware (PCB), as well as the software interface for a bi-colour LED matrix • Also assisted in implementing the extension - a Monte-Carlo Tree Search to play Connect 4	C, ARM Assembly, KiCAD
2018	<b>Yeetr (HackKing's 5.0)</b> • Recreated Twitter for a 90's themed challenge • Learnt to deploy through Git, and prevent basic attacks • Implemented PHP endpoints, as well as JavaScript (with <i>jQuery</i> ) for dynamically displaying feed	PHP, JavaScript
2018	<b>Untitled Game</b> • 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	C#, PHP, JavaScript, Python
2016 - 2017	<b>Skype4Sharp</b> • 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	C#

## SKILLS & INTERESTS

Programming	Comfortable with Scala, C# (including Unity), PHP, Python, and Java. Also have various amounts of experience in other programming languages, including Kotlin, Haskell, C, and JavaScript. All of my public projects are available on my GitHub. I am also comfortable with markup languages such as LaTeX.
Linux	Proficient in using the Linux command line - including managing headless servers and networking. Experience working with LAMP / MERN stack. Able to use standard programming utilities such as version control. Comfortable with automating (and scripting) repetitive tasks.
Mandarin	I am fluent in spoken Mandarin Chinese, and am able to converse at a reasonable pace with other native speakers.
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. I also have some experience in Photoshop, and After Effects.