ALEX LIU

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EDUCATION

Imperial College London (MEng Computing)   *2018 - 2022*
- Second year: 77.0% (1st class)
- First year: 71.1% (1st class)
- Achieved 100% in a 5-week C group project.

Haberdashers' Aske's Boys' School   *2013 - 2018*
- A Level: Further Maths A*, Maths A*, Physics A* and Economics A
- 9 A*s and 1 A at GCSE

PROJECTS

Web App
Event management platform for event organizers to create, advertise, release and allocate tickets and track payments. To be used by at least 2 Imperial societies in the coming year with a collective user base of 200+. Made using React JavaScript, Node.js, Google App Scripts, MongoDB.

Imperial Virtual Campus
Developed a virtual Imperial campus in Minecraft for Freshers in the coming year to socialise when studying remotely. Used Java, MongoDB, Angular to create mods allowing lecturers to upload lecture links and schedules such that users in the virtual campus can go to the lecture hall and access the lecture's link.

Mobile App IOS & Android
Encouraging friends to exercise during quarantine by creating, filming and sending fitness challenges with video. Made using React Native, Python, Flask, PostgreSQL, AWS S3.

Pintos
Extended a minimal operating system by implmenting multi-threading, user porgmas and virtual memory. Supports kernel threads, loading and running user progrmas and a file system. Written in C.

EXPERIENCE

Facebook Virtual Hack   *August 2020*
Participated in the hack solving challenging coding challenges and product designing.

Smarkets   *Summer 2020*
Accepted a 12 week internship at Smarkets but unfortunately it was cancelled due to Covid.

Firetech   *Summer 2019*
Awarded 'Most influential first year tutor'. Taught STEM classes to groups of 8 - 16 teens each week. Mainly teaching basic and advanced Python programming.

Imperial College Hackathon   *February 2019 & 2020*
Utilised the Godot game engine and sprite sheets to create a 2D top-down fighting game with 4 other team members. Appreciated the need for persistence when learning a new language under time constraints.

Imagination Technologies   *Summer 2017 & 2018*
Developed a visualisation tool to display the critical path along a series of hardware components causing the greatest error. Able to recursively draw the graph of connected components, written in Python.

Developed a program to optimally approximate the function f(x) = 1/x on the interval $1 \leq x \leq 2$ using F16s whilst being accurate using rounding modes. The estimated program size on hardware had 60% of the area of a flat look up table.

SKILLS & INTERESTS

Languages/Technologies: C, Haskell, HTML, Java, JavaScript, Python, SQL, Node.js, React/React Native, MongoDB, AWS, PostgreSQL.

Publicity Officer '19/20 of Imperial College ABACUS with nearly 300 members. Duties involve managing events, designing and producing: tickets, posters, and graphics mainly using Photo-shop and Gimp.

Duke of Edinburgh Achieved Gold and Bronze award.