Lewis Ng

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SKILLS

Engineering
- **Programming Languages** - Fluent in Java and Python
- **Past Experience with** - C, C#, CSS, HTML, JavaScript, Haskell, Prolog, SQL
- **Libraries and Technologies** - Linux, JUnit, JFX, PARsley, Git, LaTeX, Docker, Heroku, ANTLR

General
- **Language Skills** - Fluent English, intermediate Cantonese and French

PROJECTS

Simple Chess AI - Link *09.2021 - 10.2021*
- *Final implementation is a depth 3 min-max algorithm using alpha-beta pruning to reduce the tree complexity*
- *Positional evaluation also used to encourage development of pieces*

A Really Smart Food App - Link *04.2021 - 07.2021*
- *App targeted at reducing food waste by suggesting dishes you could cook with the entered ingredients*
- *Worked on the backend Django server, created best match algorithms and dealt with post requests from the front end*
- *Used web-scraping to populate the database with recipes*

WACC Compiler - Link *01.2021 - 03.2021*
- *Created a full compiler for the WACC language in Scala.*
- *Parser and lexer made using Parsley*
- *Made peephole optimizations for the given instructions set and helped with making an IDE, graph colouring and cross-compiling for the Intel instruction set*

Pintos *09.2020 - 12.2020*
- *Built a simple operating system from a minimal framework*
- *Implemented kernel threads, scheduler. loading and running user programs, and virtual memory*

ARM11 Project - Link *05.2019 - 07.2019*
- *Implemented an ARM11 assembler and emulator*
- *Built an audio spectrum analyser/visualiser using FFTW and SDL which could be also displayed on an LED matrix with a Raspberry Pi, as an extension*

EDUCATION

Imperial College - London
MEng Computing *09.2019 - 08.2023*
- 2:1 over both years

Birkenhead School - Wirral
A Levels and GCSEs *09.2012 - 08.2019*
- 4A* (Maths, Further Maths, Chemistry and Electronics) at A Level

EXPERIENCE

Kingham and Co - Accounting Firm - Liverpool *Summer 2020, 2021*
- *Created 2 websites; one for Kingham and Co and another for the owner's hospitality business*
- *Handled network issues and storing of large amounts of sensitive data*
- *Dealt with logistics of renting a property on the owner's behalf*