Lewis Ng

+44 7447 414574
lewisjamesng@gmail.com
https://github.com/lewisjamesng
lewisjamesng.com

SKILLS

Languages Experience - Java, Python, C, C#, C++, Scala, JS, TS, CoffeeScript, Haskell, NOSQL

Libraries, Tools & Services Used - JUnit, JFX, NumPy, OpenCV, PyTorch, pandas, React, MobX, Parsley, Docker, dotTrace, MongoDBCompass, Postman, NOSQLBooster

EXPERIENCE

Solidatus - Data Lineage Solutions - London
Junior Developer   *04.2022 - 09.2022*
- *Delivered critical hot-fix implementations to clients, improving time spent merging models by 53%*
- *Resolved large inefficiencies relating to in-house version control which reduced massive waits on creating pull requests by 98%*
- *Analyzed and improved a hot-spot function's performance by 9% using dotTrace*
- *Analyzed over 20 frequent queries with respect to Mongo indexes and documented potential long-term improvements with the assistance of MongoDBCompass*

Kingham and Co - Accounting Firm - Liverpool   *06.2021 - 09.2021*
- *Created 2 websites; one for Kingham and Co and another for the owner's hospitality business*
- *Handled network issues and storing of terabytes of sensitive data*

EDUCATION

Imperial College - London
MEng Computing - Final Year   *09.2019 - 06.2023*
- First Class in 3rd year examinations and overall

Birkenhead School - Wirral
A Levels and GCSEs   *09.2012 - 08.2019*
- A Levels - 4A* (Maths, Further Maths, Chemistry and Electronics)
- STEP 1 - Grade 1

PROJECTS

Simple Chess AI - Link   *09.2021 - 10.2021*
- *Produced a bot with a depth-5 min-max algorithm and alpha-beta pruning from scratch*
- *Factored in positional evaluation to encourage active development of pieces (1300 ELO strength)*

A Really Smart Food App - Link   *04.2021 - 07.2021*
- *Recommended recipes that could be cooked from what the user already had bought; supported hundreds of ingredients in aims to reduce food waste*
- *Created best match algorithms to specifically minimise food waste (93% match likelihood)*
- *Populated the database with recipes using web-scraping on over 10 different sites*

WACC Compiler - Link   *01.2021 - 03.2021*
- *Wrote a full compiler for the WACC language in Scala; parser and lexer written using Parsley*
- *Engineered peephole optimizations for the given instruction set (10% more performant) and collaborated with a team to make an IDE, graph colouring and cross-compiling for the Intel instruction set*

Pintos   *09.2020 - 12.2020*
- *Built an operating system implementing threading, scheduler, running user programs, and virtual memory*

ARM11 Project - Link   *05.2019 - 07.2019*
- *Constructed a complete ARM11 assembler and emulator over the course of 2 months*
- *Built an 20kHz audio spectrum analyser/visualiser using FFTW and SDL which also displayed on an LED matrix with a Raspberry Pi*