





Lewis Ng

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EDUCATION

Imperial College London

June 2023

Master of Engineering (MEng) in Computing

First Class Honours

- **Corporate Partnership Programme Award** - achieved 86% in the final year project.
- **Relevant courses:** Computational Finance, Deep Learning, Machine Learning for Imaging, Properties of Distributed Ledgers, Reinforcement Learning, Software Engineering for Industry.

Birkenhead School

June 2019

A Level: Maths, Further Maths, Chemistry, Electronics
STEP 1

*4 A**
Grade 1

EXPERIENCE

Adappt, London | Full-Stack Developer | C#, .NET, ABP, Blazor, React, SQL

Jan 2024 – Present

- Serve as a developer for the Global Outbreak and Response Network (GOARN), a system designed for the World Health Organization (WHO).
- Led the comprehensive UI overhaul of the platform, significantly improving user experience.
- Architected new functionality for GOARN and integrated it with legacy systems.
- Conducted a .NET upgrade and refactored user tables, optimizing system performance and data structure.
- Implemented spidering functionality within the Adappt in-house web scraping project.

Solidatus, London | Full-Stack Developer | C#, .NET, JS/TS, React, MobX, MongoDB

Apr 2022 – Sep 2022

- Delivered crucial hot-fix implementations to clients, cutting model merging time by 53%
- Improved in-house version control, reducing redundant delays in creating pull requests
- Enhanced the performance of a critical hot-spot function by 9% through optimization with dotTrace.

Kingham and Co, Liverpool | Freelance Web Dev | HTML, CSS, JS

Jul 2021 – Sep 2021

- Designed 2 websites; one for Kingham and Co and another for the owner's hospitality business.

PROJECTS

Depression Recovery Prediction | Python, Pytorch, Nilearn, scikit-learn

Sep 2022 – June 2023

- Developed neural network models to predict depression recovery using fMRI scan data from psilocybin therapy.
- Created an innovative GNN architecture to leverage the structure of neuro-connectivity graphs.
- Applied various dimensionality reduction techniques to mitigate data scarcity constraints.
- Attained significant predictive performance with a correlation coefficient of 0.757, surpassing clinical benchmarks.

Chess AI Bot | Javascript

Sep 2021 – Oct 2021

- Developed a bot utilizing a depth-10 min-max algorithm enhanced with alpha-beta pruning.
- Employed positional evaluation to refine the strategy and enhance piece development with greater sophistication.

A Really Smart Food App | Python, Django, React, Next.js

Apr 2021 – Jul 2021

- Developed a web app that suggests recipes based on the user's existing ingredients, aiming to reduce food waste.
- Used web scraping to populate the recipe database.

WACC Compiler | Scala, Parsley

Jan 2021 – Mar 2021

- Implemented a complete compiler for the WACC language using Scala and Parsley.
- Engineered peephole optimizations for the given instruction set (10% faster) and collaborated with a team to implement an IDE, graph colouring and cross-compiling for the Intel instruction set.

SKILLS

Programming / Markup Languages

C, C#, Java, Python, JavaScript, TypeScript, HTML, CSS, Scala, CoffeeScript, Haskell, SQL

Tools / Libraries / Frameworks

Git, numpy, pandas, PyTorch, ABP, Angular, Blazor, ElasticSearch, React, Next.js, MobX, Parsley, Docker, Postman, Redis, dotTrace, MongoDBCompass, Prisma, Vite