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   *4 A**
STEP 1   *Grade 1*

EXPERIENCE

Adappt, London | Full-Stack Developer | *C#, Azure, .NET, ABP, Blazor, React, SQL*   Jan 2024 – Present
- Technical lead on the Anomalies project for the World Health Organization: a project focused on detecting significant articles within a vast document repository, effectively identifying "needles in a haystack."
- Integrated in-house Enterprise Search - developed an interactive chat interface to enhance knowledge collation, enabling seamless back-referencing of articles and improving end-user experience.
- Led the comprehensive UX overhaul of GOARN (previous project), alongside several novel feature requests.
- 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.
- Incorporated positional evaluation to refine to a more prudent strategy and enhance piece development.

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.

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

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