Kshitij Kapoor

(+44) 7764378786 | zcemkap@ucl.ac.uk | linkedin.com/in/Kshitij | github.com/Kshitij

EDUCATION

University College London   London, UK
MEng. Integrated Masters in Mechanical Engineering , Minor in Computer Science, 2:1   *Sep. 2020 – Oct 2024*
- **Relevant Courses:** Data Structures and Algorithms, Operating Systems, Web App Development, Data Science, Databases, Distributed Systems, Stochastic Calculus.

St Dominic's Sixth Form College   Harrow, UK
A Levels: Maths A*, Further Maths A*, Physics A*, Chemistry A   *Jul 2018 – Jun 2020*
- **Achievements:** British Maths Olympiad (BMO) '20, BPhO'20.

EXPERIENCE

Thought Machine   Jul 2023 – Sep 2023
Back-end engineering intern   *London, UK*
- Worked at a fast-paced **unicorn startup**, enhancing a core process by providing a tracking feature, giving **75% more visibility** to a complex process called Accounts Migration.
- Developed a feature to monitor this process in the **lifecycle of a bank account** via a **web app** displaying its health status — a feature requested by **2 Tier-1 banks** and the team.
- Made **design decisions** in a **distributed system**, notably integrating a warm database, resulting in **60% faster** execution than projected.
- Delivered and showcased the project to the **CEO**, meeting project expectations but also achieving **two stretch goals** that extended feature coverage by **over 50%**.
- Technologies used: Golang, Python, Kafka, Kubernetes, PostgreSQL, Linux

HCL Technologies   Jun. 2021 – Aug. 2021
Software Engineering Intern   *London, UK*
- Regularly audited for errors and outdated content and fixed broken links, resulting in **10-15%** better **user experience**.
- Updated the company's websites, ensuring smooth operation and **responsiveness** across devices.
- Used **content delivery optimization** for faster loading times, resulting in a **12% increase**.
- Technologies used: JavaScript, Bootstrap, Tailwind CSS, HTML, Figma

Wallace Chess   Jan 2023 – Aug. 2024
School Chess Coaching   *London, UK*
- Worked as a **Chess Coach** at varying skill levels, at **3 private schools** in London
- **Independently** organised, built rapport and **tactfully** conducted big groups.

PROJECTS

UK House Price Predictor | *Python, Flask, SQLAlchemy, Scikit-Learn, Selenium, Git, CI/CD*
- Acquired dataset from government sources, cleaned and conducted **feature analysis**.
- Classified house types, **predicted future prices** using a neural network.
- Visualized interactive plots in a **web app dashboard**, **testing user functionality** via **integration testing**.

Letterboxd Movie Recommendation web app | *React, Flask, Beautiful Soup, Pandas, Scikit-Learn, Linux*
- **Web scraping** to fetch a user's letterboxd profile, including all watched movies and their ratings.
- Scrapes **top 1-3 k** users data to build **SVD model (used by Netflix)** using async semaphore to optimise **100k** scrapings.

Streamlining Underwriting using Financial Metrics | *Python, Flask, Scikit-Learn, Matplotlib, Figma, Git*
- Predicted if a company will go bankrupt or not with **71% accuracy** (controlling for overfitting).
- Trained a **Neural Network**, Random Forest, XG Boost, and Linear Regression on the data with a 70-30 split.
- Won **3rd place** at Collegiate Hackathon.

TECHNICAL SKILLS

Languages: Python, Golang, JavaScript, SQL, HTML/CSS, MATLAB
Frameworks: Flask, Nextjs, Gin, React, Django
Developer Tools: Git, VS Code, Kafka, Redis, Vim, Linux, Bash, Figma, UML Design