Robert Karapetian – Curriculum Vitae

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PROFESSIONAL SUMMARY

Aspiring Software Engineer in my 3rd year of Computer Science at Queen Mary University of London, with interests in Artificial Intelligence and Fintech. Proven experience in full-stack web development, as well as developing and testing Java/Python systems. Seeking relevant graduate placements to help craft meaningful solutions to real-world problems. Avid photographer/videographer with a passion for music.

EDUCATION

Queen Mary University of London   September *2022 – June 2025*
BSc Computer Science (Hons):

- **On track for a 1st Class (84% achieved across 1st and 2nd year):** Relevant Modules: Algorithms and Data Structures, Object-Oriented Programming, Operating Systems, Probability and Matrices, Graphical User Interfaces, Software Engineering, Procedural Programming, Fundamentals of Web Technology, Automata and Formal Languages, Logic and Discrete Structures.

WORK EXPERIENCE

NatWest Group   **London**
Internship – Software Engineering   *June 2024 – August 2024*

- Designed a comprehensive Terraform pipeline and pushed changes to improve the Grafana dashboard to the company goal of 95% availability, leaving a lasting impact on the engineering lab team's operations and resources, creating detailed documentation for both tasks.
- Joined the Code Club team, using Agile methodology to guide backend development of a full-stack website and coordinate testing using Jest.
- Demonstrated website's potential to streamline signup/progress tracking to the COO of Digital Transformation and 50 Code Club employees.
- Led a team of 5 in preparing a business project related to climate change, applying Agile practices and data-driven research to prototype a green rewards scheme for the NatWest mobile app, integrating environmental initiatives to align with stakeholder priorities.

IBM   **London**
Internship - Student Consultancy Project (QMUL)   *May 2023*

- Led a team of 4 in conducting a strategic analysis of the IBM Skills Build platform, advising on educational relevance for 2 million users in the next 5 years, with a focus on Artificial Intelligence, Data Science, and Security.
- Developed and presented a data-driven visualisation to the Master Inventor at IBM, mapping over 100 Skills Build resources across 10 academic disciplines, categorising them by potential demand and relevance.

Inferential Futures   **London**
Internship – Software Development and Artificial Intelligence   *March 2023 - April 2023*

- Designed and implemented a prototype of a GPT-enabled careers-advice chatbot, using OpenAI APIs to process prompts and return responses.
- Wrote and discussed a paper on the potential of such implementations and broader Artificial Intelligence concepts in the careers advice space, exploring capability, performance, and cost for the present-day OpenAI APIs.
- Conducted user testing with 30 participants, achieving a 96% satisfaction rate for the original prototype's functionality and user experience.

Queen Mary University of London   **London**
Laboratory Demonstrator – Computer Science   *September 2023 - Current*

- Facilitated the administration of modules for over 600 students by explaining concepts, marking coursework, and invigilating exams.
- Provided one-on-one Java/Python coding sessions during lab hours to explain complex topics like recursion, inheritance, and multithreading.
- Modules: Object-Oriented Programming, Fundamentals of Web Technology, Procedural Programming, Computer Systems and Networks.

MCS Projects   **London, Kent, and Birmingham**
Activity Leader - STEM Challenge Days   *June 2023 - July 2023*

- Directed STEM activity events and finals for over 400 secondary school students across England with a 100% satisfaction rate.
- Co-ordinated the E-Fit, Electric Vehicle, and Robotics Challenges, centred around computerised visualisations, climate, and automation.

PROJECTS & SKILLS

NatWest Code Club Progress Tracker - MongoDB | Express.js | React | Node.js

- Developed a full-stack website in a team of 20 using Agile processes to improve signup and progress tracking for over 45,000 students.
- Coordinated tests by leveraging Jest, including database/method mocking alongside unit/integration tests to ensure reliable user experience.

FDM Employee Portal Application - React | Next.js | Prisma ORM

- Directed a team of 7 to develop a full-stack website for FDM employees using the Agile methodology, accommodating HR processes.
- Spearheaded the development strategy using the Agile methodology, via daily stand-up meetings to ensure timely delivery of the app.
- Presented to FDM stakeholders and achieved 1st place in the Software Engineering Project Competition out of 8 groups.

Weather Application for Construction Site Managers - React | Next.js | Tailwind CSS | OpenWeatherMap API

- Managed a team of 4 to develop a responsive weather application using OpenWeatherMap API to fetch and display data based on location.
- Prototyped designs using Figma and made documentation and a 10-minute video regarding requirements, design, and evaluation.

GPT-enabled Careers Advisory Chatbot - PHP | JS | SQL | OpenAI API

- Developed a full-stack web application prototype making use of Ada, Babbage, Curie, and Davinci APIs for prompt processing.
- Researched AI APIs in the career advisory space and wrote a paper discussing capability and expenses.

Languages and Technologies: Java | Python | HTML | CSS | PHP | JavaScript | React | Next.js | TypeScript | Azure | SQL | Oracle | Jest | Git | Java Swing | Tkinter | Pygame | XML | MIPS | Jira | Confluence | Linux | Visual Paradigm | Wireshark

ACHIEVEMENTS & INTERESTS

- Created posts to amass over 50 paying members as the Social Media Manager for Queen Mary Computer Science Society.
- Achieved up to and including ABRSM Violin Grade 5 (The Associated Board of the Royal Schools of Music).
- Elected Head Boy in both Chelsea Academy Sixth Form (Year 13) and Platanos College (Year 11).