Muhammad Asad Majeed

+447766841039 email LinkedIn Github Portfolio

Education

University College London **Sep 2024 - June 2027**

Bachelor of Science in Computer Science *London, United Kingdom*

Global Undergraduate Scholarship Awardee; First Class Honors in 1st Year

Relevant Modules: Algorithms, Theory of Computation, Discrete Mathematics, Introductory Math for Computer Science, Object Oriented Programming(Java), Principles of Programming(C, Haskell)

Cedar College **Aug 2022 - July 2024**

Cambridge International AS and A Level *Karachi, Pakistan*

A-Level Grades: 4 A*s in Physics, Mathematics, Computer Science, and Chemistry

100% Merit Scholarship Awardee; Student Council Treasurer; Head of the Cedar Eats and Scinnova organizing team.

Experience

Coding and Robotics Instructor **April 2025 - Present**

BlueShift Education *London, United Kingdom*

- Delivered engaging coding lessons for KS3-level students, focusing on programming concepts and problem-solving skills.
- Led hands-on activities and projects to inspire interest in computer science, fostering critical thinking in students.

CS Outreach Ambassador **February 2025 - Present**

University College London *London, United Kingdom*

- Represented UCL Computer Science at outreach events, engaging with prospective students and promoting the program.
- Delivered presentations and workshops to inspire interest in computer science among school students.
- Delivered robotics and coding lessons to aspiring tech students, fostering hands-on learning and interest in STEM fields.

Data Intern **July 2024**

Denning School for Artificial Intelligence and Computer Sciences *Karachi, Pakistan*

- Completed a comprehensive five-day workshop on mastering data analysis using Power BI.
- Developed an interactive Power BI dashboard to analyze and filter a large dataset of over 7 million sales records from 5 US companies, providing insights on sales performance, company trends, and product popularity.

Projects

Finance Tracker | *React, Node.js, PostgreSQL, AWS* **July 2025**

- Architected a full-stack finance platform with Node.js, PostgreSQL database, and responsive React frontend.
- Integrated the **Plaid API** to aggregate financial data, from multiple accounts into a unified view.
- Engineered a dynamic dashboard with interactive charts for users to track budgets, analyze spending, and monitor financial health and implemented robust security using AWS Cognito for user authentication.

AI Job Application Assisstant | *Python, FAST API, JavaScript, HTML, spaCy, Langchain, Google Gemini* **July 2025**

- Engineered a RAG pipeline with FastAPI, delivering personalized, AI-generated application content within **3 seconds.**
- Developed an intelligent selection module using spaCy NLP that improved the relevance of selected evidence by **over 75%** compared to a baseline keyword search, ensuring highly strategic AI output.
- Built a secure Chrome Extension ensuring user privacy by leveraging **100% local storage** for all personal profile data.

WonderRoute | *React, Node.js, Express.js, Google Maps APIs, Gemini AI API, REST APIs, CSS* **June 2025**

- Built a full-stack web-app using React, Node.js, Express, and Gemini APIs for dynamic, multi-user itinerary generation.
- Integrated user personas, location syncing, and real-time route optimization by implementing robust API communication, middleware logic, and asynchronous request handling between frontend and backend.
- **Secured 2nd place** at the Google AI Student Hackathon 2025 amongst 55 shortlisted students out of 450 applicants.

Project BioReactor | *Arduino, C++* **December 2024**

- Implemented PID control loops to simultaneously regulate bioreactor **temperature (to ±0.2°C), pH (to ±0.1), and stirring speed (to ±5 RPM)**, ensuring optimal and stable process conditions.
- Developed a real-time dashboard, visualizing telemetry from 3 sensors with a data refresh rate of <1 **second** over Wi-Fi.
- Architected an end-to-end IoT monitoring and control system that **automated the entire feedback loop** from sensor reading to PID-controlled actuator adjustment.

AI Tetris Bot | *Python* **November 2024**

- Developed a Tetris AI using heuristic algorithms to optimize piece placement and maximize game scores.
- Implemented strategies leveraging metrics like aggregate height, line clears, and holes to evaluate board states.
- Incorporated a genetic algorithm to optimize piece placement strategies, improving long-term game performance.

Technical Skills

Languages: Python, C, C++, HTML/CSS, Javascript, SQL, Haskell, Java

Tools and technologies: VS Code, Linux, Git, GitHub, PyCharm, IntelliJ IDEA, Arduino, Cursor, Vercel, Render

Frameworks and Libraries: React.js, Node.js, Express.js, REST APIs, Fast API, Langchain, spaCy, Flask, Tkinter, NumPy, scikit-learn, Matplotlib, ncurses, Three.js, Java DrawApp

Certifications: CS50x