

# MUHAMMAD ASAD MAJEED

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## Education

### University College London

Bachelor of Science in Computer Science

Global Undergraduate Scholarship Awardee; First Class Honours 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), Design and Professional Skills (Python).

Sep 2024 – June 2027

London, United Kingdom

### Cedar College

Cambridge International AS and A Level

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.

Aug 2022 – July 2024

Karachi, Pakistan

## Experience

### Software Engineering Intern

June 2025 – August 2025

Network Freight Solution

Karachi, Pakistan

- Developed a shipment tracking system using **Puppeteer** and headless browser scraping, enabling real-time tracking for air shipments for over **200** carriers, reducing manual tracking time by **several hours daily**.
- Containerized the server using **Docker**, ensuring consistent environment replication and reducing deployment errors.
- Configured secure cross-origin API requests using **Express.js** and **CORS**, enabling seamless communication between the frontend and the Render backend.

### Technology and Engineering Intern

July 2025

Bright Network

London, United Kingdom

- Explored the UK's leading industries, gaining hands-on insights, skills, and employer connections across technology, business, and innovation from companies such as **Lloyds, Google, Cisco, JLR, MI5, and MI6**.
- Created an efficient bot-filtering mechanism that identified and blocked problematic IPs with **100% accuracy**, helping a startup reduce web traffic and cut hosting costs.

### Coding and Robotics Instructor

May 2025 – Present

BlueShift Education

London, United Kingdom

- Taught Scratch and Python to KS3 students (ages 11–15) through weekly coding lessons.
- Led hands-on robotics projects using **micro:bit** and **LEGO** kits to build problem-solving skills.
- Delivered interactive sessions to groups of 10–15, sparking interest in CS through creative challenges.

### Computer Science Outreach Ambassador

February 2025 – Present

UCL Computer Science

London, United Kingdom

- Represented UCL CS at multiple outreach events, increasing curriculum awareness in over **100** prospective students.
- Delivered presentations and workshops, using interactive demos to introduce computer science concepts to students.
- Taught basic robotics and Python coding to **50+ students** using hands-on kits, encouraging early STEM exploration.

## Projects

### Finance Tracker | React, Node.js, PostgreSQL, AWS

July 2025

- Architected a full-stack finance platform with Node.js, a PostgreSQL database, and a 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 Assistant | Python, FastAPI, 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 the frontend and backend.
- Secured 2nd place** at the **Google AI Hackathon 2025** amongst 55 shortlisted students out of 450 applicants.

## Technical Skills

**Languages:** Python, C, C++, HTML, CSS, JavaScript, SQL, Haskell, Java

**Tools and Technologies:** VS Code, Linux, Git, GitHub, IntelliJ IDEA, Arduino, Cursor, Vercel, Render, Docker.

**Frameworks and Libraries:** React.js, Node.js, Express.js, REST APIs, FastAPI, Langchain, spaCy, Flask, Tkinter, NumPy, scikit-learn, Matplotlib, Puppeteer, Selenium

**Certifications:** CS50x