Mohamed Sharif

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Linkedin

Profile

A Computer Science student that loves getting my hands dirty with code. Looking forward to applying my analytical and technical skills that I gained in my degree and self-studies into building challenging real-world applications. I am eager to learn and work with many different people as well as develop my skills to become a professional Software Engineer.

Professional Experience

Coding Club Teacher, *CypherCoders* 01/2023 – present

- Delivered coding content to children in primary schools in different applications such as Scratch and p5.js. This allowed me to learn how to explain concepts in a simple and concise way as well as to inspire creativity into upcoming computer science enthusiasts.

Intern, *American Century Investment* 06/2022 – 07/2022

- In this 3-week internship I worked with a team with new people to present a potential sustainable product for the firm to invest in as well as presenting research on the effects of cost of living on investment firms. I developed my skills in communication, teamwork and research as well as expanded my financial knowledge and gained experience and knowledge on different aspects in finance including Fixed Income Markets and Blockchain as well as refined my Excel skills.

Research Engineering Intern, *Cranfield University* 05/2021 – 09/2021

- I worked collaboratively alongside software engineers in the Aeroengine Department at Cranfield University, my work consisted of the improvement of a GUI (written in Python) and debugging errors to create a more robust platform capable of creating the necessary files for an in-house compressor performance solver. I used Python as well as Python Tkinter for this placement

Education

MEng Computing, *Imperial College London* 2022 – Present

- Awarded the Kingsbury Scholarship,
- Lead Front-End Developer for the new Stem Muslims website.
- Key modules I'm taking on so far: Discrete Maths, Logic & Reasoning, Computing Practical (Haskell, Java), Databases, Calculus, Computer Systems, Linear Algebra, Computer Architecture

A Levels in Maths, Further Maths, Physics and Computer Science, *LAE Tottenham* 2020 – 2022

- Achieved 4A*s as well as Merit in AEA.
- Awarded the Computer Science Award and the Governor's Award
- Participated and achieved awards in Olympiads to broaden my knowledge such as the Senior Physics Olympiad, Senior Maths Challenge, and the British Informatics Olympiad.
- Data Science Club, 2nd in National Cipher Competition.

GCSEs, *Arts and Media School, Islington* 2015 – 2020

- Achieved 8 Grades 9's in Maths, Biology, Chemistry, Physics, Geography, RE, Computer Science, and 2 Grade 8's in English Language and English Literature.
- Maths Club Captain, UKMT Team Competitions Rep, Count on Us Maths Rep.

Skills

Python	●●●●●	HTML/CSS/Javascript	●●●●○
Haskell	●●●●○	Java	●●●○○
Linux	●●●○○	Cybersecurity	●●●○○
Kotlin	●●○○○	C++	●●○○○

Courses

CS50x: Introduction to Computer Science, *Harvard University* 2020 – 2020

I studied a wide range of topics in computer science, including programming in C, Python, and JavaScript, as well as web development, databases, and security. In the course, I learnt to think algorithmically and solve problems efficiently, as well as gained an understanding of the underlying architecture of computers.

SEC275: Foundations - Computers, Technology, & Security, *SANS Institute* 2019 – 2019

This course provided me a comprehensive introduction to the field of cybersecurity, where I covered topics such as network security, incident response, and security management. I also learnt about the various types of threats and vulnerabilities that organizations face, as well as the tools and techniques that can be used to protect against them. Through hands-on lab exercises, I was able to practice applying the concepts I learnt to real-world scenarios.

Projects

Chat Social Media App using Python-Flask

I developed my own social media website that utilises a login system to login to a multi-room chat application with my main technology using Flask. I worked with SocketIO to enable real-time communication between users and SQL Alchemy to manipulate my database.

Emotional Facial Recognition AI using Python and OpenCV

Developed a Python-based facial recognition AI that can detect emotions real-time using the user's camera. I used OpenCV to train and test the model and used a dataset called FER 2013. I was able to implement the project using Tensorflow and achieved a high accuracy in detecting emotions such as happiness, sadness, anger and surprise. I was also able to recognize the limitations of my project as there was an imbalance problem in my dataset. This project helped me to gain experience in computer vision, deep learning and AI development.