# SAIF NASIR

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### SKILLS

C++, Java, Python3, JavaScript, Scala, SQL | Git, GitHub, AWS, Firebase, Appwrite, Drizzle ORM, Django

#### EDUCATION

#### **King's College London**

Sept. 2022 – July. 2025

- BSc (Hons) Computer Science | Predicted First Class degree | PGLA Leadership Award.
- Inclusive Careers Ambassador: led workshops about web development to over 100 students.
- Clubs: KCL Blockchain, KCL Tech, AI Club, KCL Robotics

#### EXPERIENCE

### Backend Software Engineer | King's Labs

Oct. 2023 - Present

- Developed a user authentication system using Appwrite, a backend server, in a Next.js Banking application.
- Led AWS Amplify project as Project Manager for a media mobile app, overseeing frontend development resulting in a streamlined and scalable infrastructure.

### Software Developer | Sky Bullion Trading

Jun. 2023 – Sept. 2023

- Designed, developed, rigorously tested an accounting software to manage financial transactions and invoices.
- User insights to revamp website design, resulting in a 14% decrease in bounce rate.

### Founder and Tutor | Sky Tutors

Sept. 2020 – Present

- Delivered one-on-one lessons to enhance academic performance by 55% of students deemed 'at risk'.
- Conducted interactive group tutoring sessions resulting in a 25% increase in active student participation.
- Create a central hub for students to connect with tutors.

### Voluntary

#### Al Intern | Kusp Gateway

July 2024 – Present

- Led Al-powered initiatives resulting in a noteworthy 30% surge in user engagement through implementation of responsive design principles.
- Managing React frontend and Java Spring boot integration and introduced CI/CD workflows using Vercel.

### Web Developer | LCOY – UNFCCC

Oct. 2023 - Dec. 2023

- Led Astro-powered web development initiatives resulting in a noteworthy 30% surge in user engagement through implementation of responsive design principles.
- Introduced CI/CD workflows using Netlify, deploying code directly from Git repositories.

### PERSONAL PROJECTS

## **Digital Journaling App**

- Developed the backend for a digital journaling application using Django REST Framework, implementing features such as creating and sharing templates, mood tracking, multimedia file support, and PDF/RTF export.
- Implemented JWT token-based authentication and collaborated with the frontend team to integrate the backend.

### Machine Learning and Advanced Algorithms | Stanford Online

- Implemented a custom MATLAB neural network from the ground up to optimize parameters for predicting handwritten digits, resulting in a 99+% accuracy rate.
- Applied unsupervised learning including K-means clustering and PCA for insights from complex datasets.

### **BrainF\*\*\*** Interpreter and Compiler

- Developed an interpreter and optimizing compiler for brainf\*\*\* using Scala, implemented features including file parsing, memory management, loop handling, and program generation.
- Optimized the compiler by precomputing jump addresses, eliminating dead code, and combining repeated operations achieving a 4.6x performance improvement on the benchmark program