Roshan Gani Ganithi

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EDUCATION

University College London

London, UK

MEng Computer Science — Predicted: First Class Honours

September 2023 - June 2027

Sutton Grammar School

London, UK

A Levels - Computer Science A*, Mathematics A*, Physics A*, Further Mathematics A

September 2021 - June 2023

Experience

Software Engineering and Machine Learning Intern

Summer 2025

Cardiac Electrophysiology & AI Research Group

London, UK

- Converted raw ECG images into accurate digital signal representations for use in training deep learning models, enabling automated analysis of cardiac patterns
- Developed and trained deep learning models to detect cardiac abnormalities directly from digitized ECG data, improving diagnostic capabilities
- Optimized existing neural networks to enhance model performance, reliability, and generalizability across diverse ECG datasets

Software Engineering Intern

April 2024

CloudNC

London, UK

- Worked alongside a team of software developers, adding features to the flagship product, CAMAssist
- Developed a series of end-to-end and unit tests using Kotlin to ensure functionality of various developing features
- Gained insight into software development team dynamics and collaboration, enhancing my teamwork and communication skills

Volunteer Programming Teacher

Feb 2022 - April 2022

Sutton Central Library

London, UK

- Taught a self-designed Python programming course at the local library over a 10-week period, empowering community members with coding skills and enhancing digital literacy
- · Developed skills in presenting ideas, acting on criticism, and thinking proactively, leading to improved teaching effectiveness

Projects

 $\textbf{Community Portal} \\ \textbf{--NTT DATA} \\ | \textit{JavaScript, Node.js, MySQL, Kotlin, Java, Azure, Docker} \\$

March 2025

- Developed a full-stack android and web application for NTT DATA as the main part of a non-profit community sustainability action portal, motivating users to integrate with their community, allowing users to upload and view reports
- Used Node.js to create a robust backend, operating on a cloud-hosted MySQL database using Microsoft Azure
- Created and hosted a Docker container to run Meta Llama 3.2 in an Azure container, allowing both applications to have in-built chatbots to respond to user queries
- Utilised ARSceneView to provide users with an immersive experience via Augmented Reality

F1 Driver Identifier | Python, Flask, NumPy, pandas, Matplotlib, opency, Git - Github

January 2025

- Developed a **full-stack web application** using **Flask** serving a REST API with **React** as the frontend that used **Machine Learning** to accurately identify Formula One Drivers
- Used ${\bf pandas}$ and ${\bf Selenium}$ to fetch images online to populate a dataset
- Utilised opencv/haarcascades to perform data cleaning
- Extracted facial features using wavelet transformations
- Used GridSearchCV to test multiple models and select that which had the highest accuracy

Student Grade Management | Java, Spring Boot, SQL, JPA, Maven, JaCoco, JUnit, Git

November 2024

- · Developed a web application allowing colleges to efficiently manage their students' courses, grades, and attendance
- Developed a REST API using Spring Boot, enabling CRUD operations to manage records such as grades and modules
- Leveraged Maven to handle dependencies, JaCoCo to monitor test coverage, and JUnit to handle unit testing
- Collaborated using Git in a team-based environment, managing version control, maintaining a clean development workflow

Skills & More

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

Frameworks: React, Node.js, Flask, JUnit

Developer Tools: Git, VS Code, Visual Studio, PyCharm, IntelliJ, Eclipse, Jupyter Notebooks, Fusion360, Tableau

Libraries: pandas, NumPy, Matplotlib, Selenium, scikit-learn, opency, PyWavelets, GridSearchCV, Pygame

Right to Work: United Kingdom - Dependant Visa, Canada - Passport Holder