

# Roshan Gani Ganithi

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## EDUCATION

### University College London

*MEng Computer Science - First Class Honours*

London, UK

September 2023 – June 2027

### Sutton Grammar School

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

London, UK

September 2021 – June 2023

## EXPERIENCE

### Software Engineer Intern

*IQ Capital*

- Yet to start

August 2025 - September 2025

London, UK

### Software Engineering and Machine Learning Intern

*Cardiac Electrophysiology & AI Research Group - Imperial College London*

- Developed and trained deep learning models to detect cardiac abnormalities directly from digitized ECG data, improving diagnostic capabilities. This includes a convolutional network with **95% precision** in identifying which type of bundle branch block a patient has
- Created data pipelines to convert raw ECG images into accurate digital signal representations, increasing the size of the research group dataset by **30%**, enabling further automated analysis of cardiac patterns
- Optimised existing neural networks to enhance model performance, reliability, and generalizability across diverse ECG datasets by implementing techniques such as **Adam** and **threshold optimisation**

July 2025 - August 2025

London, UK

### Software Engineering Intern

*CloudNC*

- Enhanced test coverage by adding new unit tests using JUnit for a Kotlin codebase
- Gained insight into software development team dynamics and collaboration, enhancing my teamwork and communication skills

April 2024

London, UK

### Volunteer Programming Teacher

*Sutton Central Library*

- 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

Feb 2022 – April 2022

London, UK

## PROJECTS

### Community Portal — NTT DATA | *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, opencv, 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 **pandas** and **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, PyTorch

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

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

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