

Samuel Adekunle

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EDUCATION

Imperial College London

Sept. 2019 – June 2023

MEng Electrical and Information Engineering

- First year: 74.6% overall (1st Class), 83% in programming
- 87% in C++ group project, designing and implementing a SPICE circuit simulator

Christ the Redeemer's College

Sept. 2012 – July 2019

- 3 A*s at A Level in Maths, Further Maths and Physics
- 7 A*s at GCSE; 8 A1 and 1 B2 at WASSCE
- Highest scoring student in all of Nigeria for all 3 A levels and 2 GCSEs (ICT and Additional Maths)

WORK EXPERIENCE

Imperial Junior Solutions

London, UK

Web Developer, The Choral Hub

July – September 2020

- Core developer of vocal training web app implementing a **Next** frontend and a **Firebase** backend
- Designed an iOS + Android prototype for investors with **React Native** which raised £15,000
- Worked in agile sprints using the Kanban method to visually track work and increase productivity
- Utilised human-centred design principles while running multiple user tests to improve user experience

TARD Engineering

Lagos, Nigeria

Software Engineering Intern

July – August 2019

- Designed a human-computer interface using **C** and **Arduino** boards for a novel queue management system which improved user satisfaction and reduced wait times by over 50% on average
- Implemented a lightweight on board HTTP client to record user responses on a centralised **Java** server

PERSONAL PROJECTS

Face Mask Detector ([facemask.samuel-adekunle.software](https://github.com/SamuelAdekunle/face-mask-detector))

May 2020

- Trained a classifier in **Python** to detect if users are wearing a face mask with an F1-score of 0.81
- Designed a proof-of-concept application in **React** to detect face masks in real time using the classifier

Jamgo (github.com/SamtheSaint/jamgo)

June – July 2020

- Created an open source, minimal, command line, static site generator in **Go** for use in future projects
- Implementation uses concurrency and builds 10 pages in 0.461s and 100 pages in 4.235s

ICACS (icacs.co.uk)

July 2020

- Built a platform for the Imperial College African Caribbean Society in **JavaScript** and **Go** with live chat, an events management system and a CV submission platform used by over 100 active users
- Served static assets using Jamgo and created backend microservices with **Go** hosted on **Heroku** leveraging concurrency and auto-scaling to allow for over 100 concurrent users during flagship events

Image Denoiser (github.com/SamtheSaint/Autoencoders)

August 2020

- Trained an Autoencoder Network in **PyTorch** to remove noise from images using the MNIST dataset
- Led an online workshop in collaboration with The AI Core to share the project with over 30 students

RESEARCH

Dynamic thermoelectric energy harvester

July – September 2020

- Worked with Professors Kiziroglou and Wright on an extension to their previous research paper automating the data collection and analysis stages in **Python** saving over 2 hours per week and identifying potential use cases for the device

SKILLS AND INTERESTS

Languages: Proficient with Go, C++, Python (Flask, PyTorch), JavaScript/Typescript (React); familiar with C, PostgreSQL, MongoDB; previously used Java, Kotlin, Rust, Dart (Flutter)

Technologies: Experienced with Git, Unix/Linux; Proficient with Firebase, GCP, Heroku, Expo, Netlify, Vercel; previously used Hugo, GitHub Actions, Docker, Kubernetes, AWS

Extracurricular: Website Administrator '20/21 Imperial College African Caribbean Society, 2nd place in coding challenge Facebook Hackathon '20, 1st place at Imperial Novices Debating Competition '19