

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)

SELECTED INDEPENDENT PROJECTS

Face Mask Detector (*facemask.samuel-adekunle.software*)

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, leveraging concurrency to build pages on-par with Jekyll and other leading generators (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

WORK EXPERIENCE

Imperial Junior Solutions

London, UK

Web Developer, The Choral Hub

July 2020 – Present

- 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

RESEARCH

Insulation For Dynamic Thermoelectric Harvesters

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 C/C++, Python, Go, JavaScript/Typescript; familiar with Swift, PostgreSQL, MongoDB, MATLAB, SystemVerilog; previously used Java, Kotlin, Rust, Dart

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

Extracurricular Website Administrator '20/21, Imperial College African Caribbean Society; Technology Ambassador '20/21, Generating Genius UK; 1st place at Imperial Novices Debating Competition '19