

# Ayaz Baig

Mobile: 07421353502 | Email: [ayazbaig@hotmail.co.uk](mailto:ayazbaig@hotmail.co.uk) | LinkedIn: [ayazbaig7](https://www.linkedin.com/in/ayazbaig7) | GitHub: [ayazb7](https://github.com/ayazb7) Website: [www.ayazbaig.co.uk](http://www.ayazbaig.co.uk)

## PROFILE

---

Driven and enthusiastic final-year MEng Computer Science student at the University of Southampton on track to graduate with First Class Honours. Specializing in Machine Learning, Mobile App Development, and Web Development, I bring a wealth of practical experience and a strong academic background. My passion for technology drives me to excel in developing innovative solutions, demonstrated through my successful projects in mobile application development and research initiatives in Machine Learning.

## EDUCATION

---

University of Southampton, UK 2021 – Expected 2025

### MEng Computer Science

- **Expected First Class Honours**; Current average: **73%** (First Year: 78%, Second Year: 72%)
- **Key Modules**: Machine Learning Technologies, Algorithmics, Programming Concepts, Cloud Development, Foundations of Computer Science, Natural Language Processing
- Event Organizer for **Southampton Google Developer Group (GDG)**; collaborated with tech professionals to host events covering topics like **Cloud Computing**, **Machine Learning**, and **Cybersecurity**, strengthening organizational and teamwork skills.

Ernest Bevin College 2014 – 2021

### A-levels & GCSEs

- **A-Levels**: Mathematics (A\*), Computer Science (A\*), Further Mathematics (A\*), Physics (A\*)
- **GCSEs**: 6 grade 9s, 3 grade 8s, 1 grade 7, including grade 9s in Mathematics, Computer Science, and the Sciences

## EXPERIENCE

---

App Developer Intern FEBRUARY 2024 – AUGUST 2024

### University of Southampton

- **Designed and developed** a cross-platform mobile application using **Flutter** to optimize routing for electric vehicle users, contributing to cleaner tech adoption.
- Collaborated with the **Citizen Centric Artificial Intelligence Systems (CCAIS) project** team to leverage **AI** for enhanced user experience and efficient route optimization.
- **Built a Django REST API backend** to integrate the routing algorithm with the mobile app, enabling real-time communication and data exchange.
- **Implemented PostgreSQL database management**, executing complex database queries to store and retrieve routing data efficiently.
- **Designed an intuitive, user-friendly interface** using **Figma** and **Google Material Design** principles, ensuring a seamless user experience and high engagement.

App Developer Intern AUGUST 2023 – FEBRUARY 2024

### ARM Environments Ltd

*Indoor Air Quality & Ventilation compliance consultancy company based in Salisbury*

- **Led the end-to-end development** of a **cross-platform mobile application** using **Flutter**, resulting in an efficient and user-friendly tool for monitoring indoor air quality.
- **Designed and implemented** a modern, intuitive UI in **Figma**, incorporating **client requirements** and **user feedback** through an **Agile development** approach.
- **Integrated multiple cloud technologies** (including **Google Firebase** and **Google Cloud Functions**) to build a robust backend infrastructure, ensuring real-time data processing and high app reliability.
- **Collaborated with major air quality monitor manufacturers** to seamlessly **integrate their REST APIs** into the application, enabling comprehensive data analysis and enhanced functionality.

*Student-Focused Mobile Technology Startup*

- **Engineered and implemented new features** for a globally-used mobile application using **Flutter**, **Google Cloud**, and **Firebase**, enhancing cross-platform functionality for both iOS and Android devices.
- **Led a distributed team of developers** to release major updates, driving a substantial increase in user base and retention rates by delivering high-impact, user-focused improvements.
- **Spearheaded the release of key app updates**, propelling the app to the top 5% of the Education category on both the **Apple App Store** and **Google Play Store**, achieving over **100,000 combined downloads**.
- **Optimized application performance and user experience**, contributing to the app's popularity and high ranking, demonstrating the ability to scale solutions effectively in a fast-paced startup environment.

## PROJECTS AND INTERESTS

---

### Dementia Diagnosis Machine Learning Research Project

- **Designed and developed machine learning models** to predict the progression of dementia using **multi-modal clinical and imaging data**, addressing a critical gap in dementia diagnosis research.
- **Implemented advanced deep learning models**, including **ResNet** and **DenseNet**, leveraging **2D and 3D neuroimaging data** and **brain inflammation markers** to enhance diagnostic accuracy.
- **Utilized various data pre-processing and augmentation techniques** to optimize model performance, ensuring robust and reliable results.
- Conducted **in-depth research** into dementia's etiology and cutting-edge diagnostic methods, integrating medical knowledge to support the technical aspects of the project.
- **Achieved a 70% grade**, showcasing strong analytical, problem-solving, and technical skills applicable to data-intensive consulting projects.

### Startup Software Consulting

- **Co-founded a software solutions consultancy** with peers, delivering a range of services from **web and app development** to **custom AI solutions** for clients across various industries.
- Developed **full-scale websites** and **cross-platform mobile apps** using modern frameworks, including **React**, **Next.js**, and **Flutter**, meeting diverse client needs and technology requirements.
- **Led the team** in an **Agile development environment**, effectively delegating tasks, coordinating sprints, and ensuring timely project delivery alongside academic commitments.
- **Produced high-quality, client-focused solutions**, conducting frequent client meetings to gather requirements, provide updates, and incorporate feedback, while creating modern UI mockups in **Figma** to align with client expectations.

## SKILLS

---

- **Programming:** Python, Java, JavaScript, Haskell, C/C++
- **Web Development:** React, Next.js, Vue.js, Node.js, Express, Django, CSS
- **Mobile Development:** Flutter, SwiftUI, Kotlin
- **Cloud & DevOps:** Azure, Google Cloud, AWS, Firebase, Docker & CI/CD Pipelines, Git
- **Databases:** PostgreSQL, MySQL, Firebase Realtime Datastore, Query Optimisation
- **ML & Data Science:** TensorFlow, Keras, PyTorch,

## REFERENCES

---

Sebastian Stein, Professor of Electronics & Computer Science at University of Southampton

Email: [ss2@ecs.soton.ac.uk](mailto:ss2@ecs.soton.ac.uk)

Alex Wilkinson, Chief Operating Officer at ARM Environments Ltd

Email: [alex@arm-environments.com](mailto:alex@arm-environments.com)