Aidan Juma

Computer Science Student

Personal Profile

A driven Computer Science student at Queen's University Belfast and an aspiring Software Engineer with a passion for creating innovative, aesthetically pleasing, and user-centric software solutions. I thrive on turning complex problems into elegant code and am constantly seeking to expand my technical skills. Always actively-innovating, working on cutting-edge software solutions in evolving fields, such as large-language model and image generation AIs.

Personal Details

Location: Belfast, UK (NI)
LinkedIn: @aidanjuma
GitHub: @aidanjuma

Skills & Expertise

★★★ Proficient

Python, Flask, Go, Gin, TypeScript, JavaScript, Node.js, Express.js, Dart, Flutter, HTML, CSS, REST API, SQL, Linux/Unix Systems, Cloudflare, DNS, Google Workspace, Git, GitHub, Communication, English, Spanish

★★ Comfortable

Amazon Web Services (AWS), Google Cloud Platform (GCP), Kubernetes (k8s), Bash (Shellscript), Data Science (Python), Terraform, Svelte, C++, WordPress, Docker, Next.js, React.js, PostgreSQL

★ Familiar

Microsoft Azure, GLSL, Three.js, Federated Computing, Japanese

Extracurriculars

Queen's Computing Society
University Society

Professional Experience

Partner Software Engineer at Actuari

Jun 2025—Current

Architected and delivered a private AI solution for the healthcare sector, ensuring strict adherence to stakeholder requirements whilst establishing a scalable multi-language codebase:

- Designed a monorepo infrastructure to streamline development across diverse set of programming languages.
- Implemented privacy-focused AI modules to ensure compliance with healthcare data standards.
- Collaborated closely with primary contractors to translate complex system requirements into technical specifications.

Head of Technical Operations at Escape Executive Limited

Aug 2024—Current

Led website migration and maintenance initiatives, and currently implementing an ongoing content improvement (SEO) plan whilst simultaneously overseeing various other technological solutions for the business:

- Managing Google Workspace (5+ users) and Google Cloud Platform (3+ services) solutions.
- Integrated Google APIs into the EasyTaxi and Chauffeur Drive Systems (CDS) software packages.
- Arranging regular team meetings to ensure efficient and timely communication internally.
- Implementing and maintaining technological infrastructure to support day-to-day business operations.

Swim Instructor at MD Sports Solutions Limited

Mar 2022—Jun 2025

Working as both a lead teacher and cover teacher to provide the business with the resources required to operate successfully on a day-to-day basis.

- Teaching children aged 3-18 across multiple ability levels.
- Cultivated a supportive environment focused on the individual growth of children with various disabilities.

Market Analyst for Spark* Scholarship (Internship) at Spring

Oct 2022—Oct 2022

Formulated and pitched a business plan to Spring CEO Chris Lamontagne, and thus was awarded the Spark* Scholarship for 2022.

- Invited to numerous big-tech HQs/major offices (Google, YouTube, Apple, LinkedIn, and Spring) in San Francisco/Bay Area.
- Conceptualised a new product via initial research and development.
- Led team project on merchandise sales in short-form content.
- Delivered data-driven presentation to CEO.
- Networked with a multitude of well-known industry professionals at company events.

September 2023–Current
Belfast, Northern Ireland

Engaged with events run by companies such as Kainos in Belfast; contributed to the community Discord server throughout the year, making numerous valuable connections.

Senior Cathedral Chorister
Musical Scholarship
September 2012–July 2019
Liverpool Metropolitan Cathedral

Engaged with 17–20 hours per week singing and leading in regular/special mass services, concerts, and rehearsals. Broadcasted on national/international radio stations.

Achieved the title of "Heenan Team Leader" in September 2017; promoted to "Deputy Head Chorister" in September 2018.

Performed across multiple venues across the UK and Europe, including:

- St. Peter's Basilica (Vatican City)
- Köln Cathedral
- Westminster Abbey
- Westminster Cathedral

Referees

Dr. John Bustard
Academic
Director of Qlab at Queen's University Belfast
j.bustard@qub.ac.uk

Abigail Farrell
Work
Customer Experience Manager at Escape Chauffeurs
abigail@escapechauffeurs.com

Assistant IT Manager (Internship) at Wray Bros. Limited

May 2022—May 2022

Accumulated a week of work experience on-site at Wray Bros. offices as an IT assistant/junior developer.

- Reported directly to the CEO Mark Wray to review online content and improve website performance (reduced error rate by ~10%).
- Enhanced IT and communication skills in a professional environment.
- Gained practical experience in business IT operations.

Education

BSc Computer Science (2023–2026)

🏛 Queen's University Belfast (Belfast, UK)

Level 1 Modules (First-class, avg. 75%):

- Fundamentals of Mathematics for Computing
- Programming (Java)
- Introduction to Computer Architecture
- Databases
- Introduction to Cyber Security
- Computer Science Challenges

Level 2 Modules (First-class, avg. 71%):

- Data Structures and Algorithms
- Theory of Computation
- Software Engineering and Systems Development
- Introduction to Artificial Intelligence and Machine Learning
- Professional and Transferrable Skills

Level 3 Modules (Current):

- Computer Science Project (Dissertation, AI/LLMs)
- Concurrent Programming
- Cloud Computing
- Network Security
- Malware Analysis

A-Levels & EPQ (2021–2023)

🏛 St. Edward's College (Liverpool, UK)

A-Levels:
Computer Science, Mathematics, Geography.
EPQ:
"'Artificial Intelligence is already sentient.' – to what extent do you agree with this view?"

Projects

A-Eye Vision

Related to: Queen's University Belfast

Technologies: Stable Diffusion, ComfyUI, Python, Three.js, Next.js, Vite, TypeScript, HTML, CSS

Aims to build a foundation for generating high-quality synthetic training data using AI image generation techniques. By starting with a simple low-poly 3D object, capturing its depth map, and using Stable Diffusion with ControlNet, photorealistic variations of objects can be created at scale to train computer vision models on. Participated in the "Backdrop Build" accelerator programme, where A-Eye finished as a finalist.
Links: Website | Docs | GitHub | Backdrop Build v3