



Personal Statement

I'm a recent graduate of Edinburgh University with a Masters in Informatics with Honours. I've been programming for 7 years and have a strong background in Python development for processing intensive applications. In addition to my studies I've been developing my ability to integrate AI/ML into consumer services and build front-end applications through work with local startups.

I'm looking for a role in which I can develop professionally and provide a balanced perspective on state of the art topics.

Skills

- > AI/ML: TensorFlow, PyTorch, user facing AI tools
- > **Data Science:** Pandas, NumPy, data analysis, data visualisation, benchmark evaluation, public sector data
- > Front-End: JavaScript, Node.js, React, UI/UX design
- > **Programming:** Python, TypeScript, Haskell, C/C++
- > Version Control: Git, GitHub Actions

Experience

S University

Masters project - visual music editing with CQ spectrograms

- > Demonstrated using a state of the art signal processing algorithm to render an editable spectrogram of a song in an ordinary image format.
- > Modernised a partially working 2013 python codebase and intensively reworked the numerical processing to be GPU compatible.

Python:: PyTorch:: CUDA:: GPU:: NumPy:: Signal Processing:: CQ Spectrograms

Binary Abacus - Interactive binary learning tool

- > Built a modern, interactive web application using React to help learners interact with binary numbers in a more meaningful way.
- > Implemented various encoding options and technical levels (unsigned/signed binary, IEEE 754, ASCII).
- > Designed with responsive layout and multiple interaction modes (keyboard/mouse) for accessibility.

Workout Mate - Gymnastics strength and conditioning app

- > As part of a redesign project for the Hevy workout app, I developed a web app which now is used to provide the Edinburgh University Gymnastics club's strength and conditioning programme.
- > Used React, Astro and Github Actions to create a web app to help the club members perform \ workouts.

Tenuto - Robot piano tutor

- > 73% Project mark
- > Developed realtime hardware and control software for a robotic piano tutor.

- > Chief system architect in a team of 10 students.
- > Product demo rated best among 23 teams by technology and business experts.

High school

Scottish Baccalaureate in STEM - wireless communication using visible light

- > Highest Baccalaureate grade for the Angus district (2019).
- > Learned embedded programming, electronics, signal processing and telecommunications; developed a relay chat proof of concept in an independent research project.



Edinburgh University - MInf (Hons) Informatics (2019-2025)

- > 2:1 (Masters Level)
- > 77% Masters Project mark
- > Consistent excellence in inventiveness, quality and documentation on programming coursework.

```
Functional Programming :: Object-oriented Programming :: Discrete Maths & Probability :: Programming Language Design :: Algorithms & Data Structures :: Operating Systems :: Linear Algebra :: Formal Logic :: Creative Coding for Music :: Datacentre computing :: Computer Security :: Calculus :: Cognitive Science :: Robotics & Computer Vision :: Microprocessor Architecture :: Numerical Optimisation :: Data Science & Statistics :: Teaching :: UX Design
```

Arbroath High School (2013-2019)

> Proxime Accessit 2018.

Employment

QuickWord - UX developer (May 2025 - Present)

Al scheduling app

- > Integrating AI backend into the user experience.
- > Developing bespoke elements for the user interface.

```
React :: Node.js :: Tailwind :: TypeScript
```

Inkwell PR - Firebase and React developer (Jan - Aug 2024)

Startup using AI to write press releases

- > Combining the GPT-3 model with expert curated prompts to create more effective press releases.
- Implementing payment and subscription models.

```
React :: Firebase :: Stripe :: OpenAl
```

PlayerData - Firmware engineering intern (Jun - Sep 2023)

Wearable technology for team sports

- > Developed virtual driver testing framework for sports wearables using C/C++ on ARM Cortex-M microcontrollers.
- > Setup of driver code debugging on QEMU and the Zephyr device emulator framework.
- > Hardware emulation for deployment on Nordic SoC.

```
C:: C++:: Zephyr:: QEMU:: Nordic SoC:: ARM Cortex-M:: JLink:: GDB:: Emulation:: ARM Cortex-M:: JLink:: ARM Cortex-M:: AR
```

Testing

Gymnastics - Strength coach (Feb 2023 - Present)

University sports club

- > Organising and running a training programme.
- > Coaching and mentoring athletes.

Session planning :: Athlete preparation :: High performance sport

Other Jobs

Edinburgh Fringe	Ď Costa Coffee	∯ Artisan Gelato	⊛ Nairn's Oatcakes	⊯Grant Westfield	¶ Wetherspoons
2024	2022-2023	2021	2021	2021	2019-2020
Flyerer	Barista and till operator	Gelatier	Labourer	CNC operator	Porter and kitchen assistant

Community involvement

Scottish University Gymnastics League - Social Organiser (May 2025 - Present)

National sport development committee

- > Coordinating the social calendar for Scottish university competitions and training camps.
- > Working with clubs to develop adult gymnastics nationally.

Event planning :: Social development :: Community engagement

★ Edinburgh University - Gymnastics (2022-Present)

University sports club

- > 2022/23: Social and Fundraising Officer
 - > Brought the social attendance from 5 to 30 per event.
 - > Coordinated fundraising for SAMH raising £1023.
- > 2023-Present: Coach & sport specific training
 - > Men's artistic gymnastics coach.
 - > Developed the strength training programme.

Fundraising :: Coaching and mentoring :: Event organisation

Hearts Innovation Centre	☐ Turing Festival	First Lego League	Æ Scouts
2024	2024	2019-2020	2015-2019
Code Club Mentor	Photographer	Mentor	Young Leader
UK Citizen	UK Driving License	lmr	mediate start