

Dugald Macintyre

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EDUCATION

The University of Edinburgh

Edinburgh, UK

BSc (Hons) in Artificial Intelligence and Computer Science

September 2023 – May 2025

- Relevant Courses: Algorithms and Data Structures, Software Engineering, Data Science.
- Projected First-Class Honours (averaged and on track for a first).

Ardnamurchan High School

Strontian, UK

Advanced Highers in Computer Science (A) and Mathematics(A)

August 2015 – May 2021

- Achieved 7 As at Higher, 2017 Enterprising Mathematics National Finals Winner.
- Awarded Head Boy. Digital Leader. Silver and Gold DofE. World Challenge 2018.

WORK EXPERIENCE

The University of Edinburgh

Edinburgh, UK

Teaching Support Provider

September 2023 – May 2024

- Conducting tutor group sessions for second-year students on "Introduction to Algorithms and Data Structures" to enhance students' understanding of complex concepts.
- Delivering course material digestibly while improving presentation and time management skills.

AMP Clean Energy

Fort William, UK

Work Experience

March 2020

- Actively participated in a learning experience with a small team gaining hands-on exposure to various coding techniques and practices like MVC design patterns, fork and clone workflows, and error handling.
- Strengthened my understanding of web development and debugging through real-world scenarios across multiple departments, bolstering my coding knowledge and problem-solving capabilities.

PROJECTS

AIRBNB LISTINGS IN EDINBURGH / Python | GitHub [\[Link\]](#)

- Conducted an in-depth analysis of Airbnb listing prices in Edinburgh, employing advanced data science techniques such as data cleaning pipelines, complex modelling, regex, PCA, and visualisations.
- Collaborated within a team coordinating development using feature branches.
- **Technologies Used:** Python, Pandas, Matplotlib, Seaborn, scikit-learn.

TRADING BOT / Python | GitHub [\[Link\]](#)

- Developed and executed trading strategies such as mean reversion strategies using RSI, subjecting them to iterative backtesting on historical data gathered using OANDA via their API to evaluate performance.
- **Technologies Used:** Python, Pandas, API.

MOVIE RECOMMENDER / Python | GitHub [\[Link\]](#)

- Engineered a personalised, full-stack movie recommender system testing and implementing content-based and collaborative filtering techniques supporting both single and multiple-input movies.
- Designed an intuitive user interface as part of a team and integrated a database for seamless interaction.
- **Technologies Used:** Python, Flask, Pandas, scikit-learn, Bootstrap.

ADDITIONAL EXPERIENCE

THE GIT & GITHUB BOOTCAMP [\[Certificate\]](#)

June 2023

- Covered essential Git and GitHub tools, workflows, and collaboration techniques for code-based projects.
- Gained experience in complex git techniques such as stashing and rebasing while improving version control skills enabling more efficient development.

ALGORITHMIC TRADING A-Z WITH PYTHON, MACHINE LEARNING & AWS [\[Certificate\]](#)

July 2023

- Developed financial and trading knowledge by implementing, analysing, and combining trading strategies such as Bollinger Bands, The Stochastic Oscillator, and MACD.
- Utilised machine learning for automated Forex trading on OANDA using AWS EC2 instances.

PYTHON FOR DATA SCIENCE AND MACHINE LEARNING BOOTCAMP [\[Certificate\]](#)

August 2023

- Mastered core Data Science concepts including data cleaning, visualisation, regression, and classification.
- Explored advanced topics such as Natural Language Processing, Neural Networks, and Deep Learning with TensorFlow.

THE WEB DEVELOPER BOOTCAMP 2023 [\[Certificate\]](#)

August 2023

- Sharpened my practical skills in creating responsive, full-stack web applications using HTML5, CSS3, and ReactJS. Also, acquired proficiency in secure backend development with Node, AJAX, and MongoDB.
- Developed skills necessary to create dynamic and secure web applications, enhancing my abilities as a web developer.

ADDITIONAL SKILLS & INTERESTS

Languages: Python, C, Java, JavaScript, HTML + CSS, Haskell | **Libraries:** TensorFlow, Pandas, Seaborn + Matplotlib | **Web Dev:** Node.js, ReactJS, Express | **Databases:** MongoDB, Relational Database (MySQL) | **Areas of Interest:** Data Science, Web Design and Development | **Soft Skills:** Problem-Solving, Self-learning, Presentation, Adaptability, Teamwork