

## EMPLOYMENT

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Software Development Intern	Global Aerospace	Summer 2024, Summer 2023
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### *Banks Project*

- Created an interface to input and normalize unformatted insurance policy data sent by banks to store in an internal database using **Visual Basic** and **SQL**.
- Created an automated interactive data analysis report system using **PowerBI**, integrated with the internal database via **SQL**, allowing for data projections, filtering, and insurance policy comparisons.

## EDUCATION

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Cardiff	Cardiff University	September 2021 - September 2025
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- **MSc in Artificial Intelligence (Expected)** (September 2024 – September 2025).
  - Modules: Knowledge Representation (85%); Automated Reasoning; Principles of Machine Learning; Computer Vision; Natural Language Processing.
- **BSc in Computer Science** (September 2021 – June 2024) - First-Class Honours (1:1)
  - Modules: Web Applications (98%); Object-Oriented Java Programming (87%); Group Project (89%); Data Processing and Visualisation (91%); Computational Mathematics (77%); Scientific Computing (74%).

## PROJECTS

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- **Multilayer Perceptron for Predicting Mango Dry Matter Content from NIRS Data** (2025) - A neural network that uses Near Infra-Red Spectroscopy data to predict the dry matter content of mangos.
    - Developed without the assistance of ML libraries and implemented entirely using **NumPy** with linear algebra to gain a better understanding of basic machine learning concepts such as bias, variance, and backpropagation.
  - **NLP Fact Checker** (2024) - A system written in **Python** and version controlled in **Git** that uses **NLP** to automatically retrieve evidence from an **Elasticsearch** database for user-made statements and assess truthfulness.
    - Trained language models with **HuggingFace** to assess the relevancy of passages.
    - Ported the final system into a web-application using **Flask**, **HTML**, **CSS**, and **JavaScript**.
    - Achieved a final mark of 84%.
  - **AIPlaylistNameGen.com** (2023) - A website that uses **Apple Music's API** combined with **OpenAI's API** to generate curated playlist names for Apple Music playlists based on the songs inside.
    - Backend uses **Flask** framework written in **Python**.
    - Created custom frontend using **HTML**, **CSS**, and pure **JavaScript**
  - **Tool Share Cardiff** (2022) - A **Flask** website group project that allows Cardiff community members to list and rent tools with a deposit payment system.
    - Implemented payment system using **Stripe API** and interactive map view using **Google Maps API**.
    - Managed users, tools, messages, reviews, reports, orders, and disputes using an **SQLite** database.
    - Effectively used **Git** branching strategies for version control among team.
  - **theobaur.co.uk** (2021 - Present) - My personal portfolio website.
    - Configured VPS with **Apache2** for hosting.
    - Designed custom frontend with **HTML**, **CSS**, and pure **JavaScript**.

## TECHNICAL SKILLS

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- **Programming Languages:** Python, Java, JavaScript, Visual Basic
  - **Tools and Technologies:** HTML, CSS, Git, Flask, SQLite, Power BI, RESTful APIs

## AWARDS

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- Awarded academic scholarships for both Bachelor's and Master's degrees at Cardiff University.
  - Prize winner of the "100 Big Ideas" competition for a software start-up idea.