Harry Findlay

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EDUCATION

University of Exeter, UK **2021 – 2024**
BSc Computer Science – Stage 3

Achieving a 1:1 (80%) with modules focusing on:

- Object Oriented / Procedural / Functional Programming
- Computer and Internet Systems
- Computational / Discrete Mathematics
- Natured-Inspired Computation
- Data Structures and Algorithms
- Artificial Intelligence and Machine Learning
- Computer and Network Security
- Formal Computation and Complexity Theory

St John's Marlborough Sixth Form College **2019 - 2021**
A-Levels: *Computer Science (A*), Maths (A), Physics (A)*

St John's Marlborough **2014 - 2019**
10 GCSEs *with majority 8s, 7s and 6s*

RELEVANT PROJECT EXPERIENCE

Applying Deep Reinforcement Learning to Compiler Optimisation
Python, C, GCC, Machine Learning

- Exploring a novel area of research where I am applying modern machine learning methods to compiler optimisation with the aim to increase performance of compilers and the programs that they produce.
- Work on the project will include but is not limited to building an environment for an RL agent; designing and implementing a neural network; and writing a research paper with the goal of getting it published.
- Organising and attending weekly meetings with my supervisor to discuss any problems and ensure that my project is developed to the highest possible quality.

Bespoke E-Commerce Website, ExeChange
Python, Django, Django REST API, React, PostgreSQL, Git, Docker

- Developed an e-commerce clothes trading marketplace exclusive to Exeter students in a team of six which achieved top marks.
- Individually implemented GitHub actions; user authorisation and authentication; email sending and verification; and integration testing.
- Guided group discussions to ensure ideas were rigorously developed within a demanding six-week timeframe.

Artificial Intelligence Maze Solver
Python

- Developed a maze solving program to find paths through extremely large mazes.
- Achieved top marks (92%) by writing high quality and efficient code to implement A* and DFS algorithms.
- Explained and visualised my thinking in a concise report that covered all aspects of my program and provided reasoning for the algorithms I chose to develop.

Multi-Threaded Card Game – *Java, JUnit, Threading, OOP Design Patterns, Test-Driven Development*

C / C++ Programming Challenges – *C*, *Valgrind*, *Low Level Memory Management, Data Structures, Algorithms*

Haskell / Prolog Programming Challenges – *Haskell, Prolog, Functional and Logic Programming*

Cycling Race Management System – *Java, JUnit, Object-Oriented Backend*

Tetris Online Game – *HTML, CSS, PHP, JavaScript, MySQL, User Authentication, Session Variables, Azure VMs*

EXPERIENCE

UNIVERSITY OF EXETER CYCLING CLUB **Sep 2022 – Sep 2023**
Welfare Office
Attending training on areas regarding safeguarding and welfare and being able to quickly and confidently answer any questions or concerns of members to ensure a safe and inclusive environment for all.

SAMUEL JONES, EXETER **Nov 2022 – Feb 2023**
Front of House

THE ROEBUCK, MARLBOROUGH **Jul 2022 – Sep 2022**
Front of House

MARLBOROUGH LEISURE CENTRE **Feb 2019 – Sep 2021**
Lifeguard
Worked as part of a small, tight knit team to uphold the strict safety standards required while supervising swimming pools and dealing with the day to day running of a community leisure centre.

MARLBOROUGH PENGUINS **Feb 2016 – Sep 2021**
Volunteer Swimming Teacher
Volunteered to help my local swimming club develop their younger swimmers fundamental water skills and swimming strokes to give back to the club that developed me as a swimmer and a young adult.

ADDITIONAL QUALIFICATIONS

National Pool Lifeguard Qualification **Oct 2019 – Oct 2021**

Bronze Duke of Edinburgh's Award **2016**

SKILLS AND INTERESTS

Cycling Technology Reading and Research Music Languages