Alexander Mulcahy

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EDUCATION

University of Oxford   Oxford, England
BA Computer Science   Expected Graduation: July 2027
Predicted 2.1
Modules including Linear Algebra, Imperative Programming, Design and Analysis of Algorithms.

Exeter College   Exeter, England
A* in A level Further Maths, A level Maths, A level Music   Sep 2022 - Jul 2024
A in A level Computer Science

St Peters CofE Aided School   Exeter, England
Nine 9s and one 8 at GCSE   Sep 2017 – Jul 2022

WORK EXPERIENCE

Uber   Exeter, England
Delivery Rider   May 2024 - Present
  ● I manage multiple orders at once, where I utilise my time management skills.
  ● I achieve efficient delivery from shops and restaurants to customer's homes.

NHS   Exeter, England
Data Analyst Intern   Nov 2023
  ● I queried and updated the central Electronic Healthcare Record system.
  ● I sat in on departmental meetings discussing strategy.

PROJECT EXPERIENCE

Minimax-Driven Connect4 CPU opponent
Python
  ● I implemented a recursive algorithm using the minimax decision rule from game theory to create a computer opponent for the game Connect4.
  ● The skill level could be adjusted by changing the number of moves into the future that the program calculates, and it could beat a human player without significant processing time.

Personal Portfolio Website
HTML / CSS
  ● I created a simple website to display my profile and portfolio under the domain www.sandymulcahy.xyz.

Neural Network House Price Predictor
Python / SQL
  ● I experimented with machine learning by building a simple neural network and training it via reinforcement learning to predict house prices from inputted real estate data sourced from Kaggle.com.
  ● I used 900 data entries which included fields like number of bedrooms and square footage to train the model and tested the model on a further 100 entries which resulted in 92% accuracy in predicting the price of the house.

SKILLS AND INTERESTS
  ● Programming Languages: Python, Scala, Haskell, C#, SQL
  ● Interests: Jazz Piano (Grade 8), Fantasy Premier League Football