George Sharpe

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EDUCATION

University of Exeter | Exeter, UK   **Sep 2022 - Jun 2025**
- BSc Computer Science
- Completed Modules: Learning from Data, Nature Inspired Computation, Artificial Intelligence and Applications

Sandringham School | St Albans, UK   **Sep 2015 - Jun 2022**
- A Levels – Computer Science (A*), Maths (A*), Further Mathematics (B), Physics (B)
- 9 GCSEs - 6 at Grade 9/8(A*) with Mathematics (9/A*), English Language (7/A) and Computer Science (9/A*)

CODING PROJECTS

Automated Clinical Coding Model   **Sep 2024 - Present**
- Designing a Large Language Model (LLM) to interpret medical records and assign ICD-10 codes
- Classification model with up to 70,000 classes
- Implementing a Binary Decision Tree (BDT) to contextualise peripheral data from coding guidelines
- Completed a literature review to derive optimal methods for solving

Deep Learning Model for Predicting Credit Card Defaults   **Jan 2024 – Apr 2024**
- Designed a Multi-Layer Perceptron (MLP) to classify credit card transactions as likely to default or not
- Cleaned and preprocessed data to account for class imbalance in dataset
- Leveraged L2 regularisation and batch normalisation to improve performance

Killer Sudoku Game & Solver   **Jul 2023 – Oct 2023**
- Engineered an algorithm to solve the game 'Killer Sudoku'
- Utilised a backtracking algorithm and linear algebra
- Used libraries NumPy and SymPy for efficiency and simplicity

Pairs Game Website   **Jan 2023 – Apr 2023**
- Launched a dynamic web application using the LAMP (Linux, Apache, MySQL, PHP) stack
- Used HTML, CSS, and JavaScript in creating the web application
- Deployed on a Microsoft Azure cloud-based virtual machine

Social Media Platform   **Jan 2023 – Apr 2023**
- Developed a Java backend package to be implemented with an existing frontend
- Practiced OOP principles to create an effective and readable design
- Collaborated with another student in Pair Programming, leveraging Git Version Control

AQUA Weather Application   **Oct 2022 – Nov 2022**
- Designed air pollution data analytics solution in Python
- Accessed and manipulated data from CSV files using Pandas
- Obtained real-time data utilising an API

Minesweeper Game & Solver   **Jun 2021 – Mar 2022**
- Created a Unity-based version of 'Minesweeper' with scripts written in C#
- Designed a solving algorithm using a seed fill algorithm and linear algebra

OTHER EXPERIENCE

Santander | Customer Advisor   **Jun 2018**
- Engaged in daily activities of a local branch, including daily morning briefs and ATM money transfers
- Greeted customers and assisted in financial transactions

SKILLS AND INTERESTS

- **Coding Languages:** Python, Java, C#
- **Skills:** VS Code, Anaconda, IntelliJ, PyCharm, Linux
- **Interests:** Weightlifting, Cooking, Football, Cycling, The Witcher franchise, Gaming
- **Societies:** Computer Science, Video Games, Board Games