# Samuel Morgan

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## Education

University of Manchester, BSC (Hons) Computer Science

September 2021 – July 2024

- Societies: Data Science (MUDSS), Uni Air Squadron (MASUAS), Climbing (MUMC), Skydiving (MUSC) Bristol Grammar School, A-LEVELS

Sept 2019 - July 2021

- **Grades:** A\*A\*A\* Maths, Physics, Computer Science:
- Achievements: Academic Scholar for Computer Science, 5th in National ISC Climbing final.

# Experience

#### Vistair Systems, Summer Intern, Bristol, UK

August 2021 – September 2021

- Analysed airlines' key indicators such as fleet complexity, fleet expansion, and recent M&As to identify target clients and calculate the total addressable market of different regions.
- Worked alongside an agile software development team building a react web app as well as a new data visualisation project.
- Researched technology trends, including potential applications of **machine learning**, amongst airlines & regulators to predict clients' future demands from a safety management system.
- Earned **public praise** on the company's LinkedIn for playing "an **actionable role** in advancing a number of projects"

### Bristol Henleaze Swim Club, Lifeguard, Bristol, UK

September 2019 – May 2021

- Calmly dealt with first aid related incidents, from initial diagnosis and treatment to looking after and comforting the individual during recovery.
- Acted as a key point of contact between coaching staff and parents, including helping new parents and swimmers understand how the club works as well as introducing them to various team members and answering any questions they may have on safety or pool matters.

#### Renishaw, Work Experience, Gloucestershire, UK

July 2019

- Worked as part of a multi-disciplinary team to design, develop and build a bespoke product to a client's specification. I then lead the presentation of our solution to a theatre of Renishaw engineers.

# **Projects**

#### Data Science Society Winter Hackathon, HACKATHON

December 2021

- Pre-Processed a large dataset containing 89 columns to make sure all data was numeric, normalised, and Null values were replaced.
- Built a combined model using **Extreme Gradient Boosting** and **Lasso** to predict the sale price of houses.
- Predicted the sale price of the houses with an **RMSError of 0.1159** based on evaluation using a separate test dataset the model had not been trained on.

#### Great Uni Hack 2021. HACKATHON

November 2021

- Challenged by Fuzzy Labs, we created a **TensorFlow** model and trained it to play checkers through **Deep Q** Learning in a PyGame environment.

## samuelmorgan.co.uk, Portfolio Site

July 2021

Designed and developed a personal portfolio site using HTML, CSS and JS. To provide a place to showcase my skills and experience beyond what can fit on a CV.

#### github.com/smorga41/Connect-4-MiniMax-Ai, Personal

May 2021

- Built an AI using the minimax algorithm with alpha-beta pruning. The AI has since beaten every human opponent to date.

#### github.com/smorga41/Logistic-Regression-Sentiment-Analysis, PERSONAL

July 2020

- Built a supervised machine learning classifier using K Nearest Neighbour (KNN) and Logistic Regression. My final model could classify reviews with 91% accuracy (based on a test set of 10k random IMDB reviews).

## Technical Skills

- Python, Java, C, HTML, CSS, JS, PHP, SQL, Git, Agile Dev, Linux, Docker, LaTeX, ARMv5, Verilog