https://github.com/pedro15sousa

Pedro Sousa

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Education

Manchester, UK **University of Manchester** **Fall 2019 – July 2023**

- **Major:** Bsc in Computer Science and Mathematics with Industrial Experience, First Year Mark: First Honours (86/100)
- **Programming Coursework:** Programming 1 (Python), Programming 2 (Java), Algorithms and Data Structures, Data Science, Machine Learning, First Year Project (Web Application)
- **Mathematics Coursework:** Calculus, Linear Algebra, Introduction to Pure Mathematics, Financial Mathematics, Probability 1
- **High School:** Science and Technology, Final Mark: 19/20

Employment

Head of Technology **FutureLeaderX (start-up)** **2020-Present**

- Website designer, in charge of all information and technology functions of a student led start-up.
- Responsible for the company's digital presence and for reaching out to prospect guests to our company based podcast.
- Currently enhancing our digital presence by making the leap from social media to a full spectrum web application.

Student Ambassador **University of Manchester** **Fall 2019–Present**

- Leading and organizing university and department tours for prospect students and parents.
- Provide future students with insight on academic life and offer guidance regarding optional courses, university accommodation and career paths.

Personal Projects

- **Web Application for FutureLeaderX** (Present). Web application using React.js framework that contains a library of biographies of past and current society icons. The goal is to link it with the main website which is being developed using Webflow as the main front-end technology.
- **Maze Solver** (2020). Programming 2 coursework. Grade achieved: 97/100. Java based application that receives a .txt file as a maze and renders it into a visual application. The user can choose to 'Step' through the maze or to be presented with final solution. An algorithm was created to solve mazes of different layouts. Extra feature implemented to receive the size as an input and randomly creates and displays a solvable maze accordingly. Save and Load options incorporated.
- **Spam Filter** Data Science coursework. Grade achieved: 18/20. Used Jupyter Notebooks and Python to create a spam filter. An example data set was provided. Worked with the pandas library to analyse and manipulate the data. Machine learning methods and probability functions were used to make the agent distinguish spam messages from ham messages.
- **Chess Game** (2020). Programming 2 coursework. Grade achieved: 100/100. Terminal based chess game created in Java. Requires two players. Side project: used the same structure to create the game in Python and developing a neural network to serve as one of the players.
- **Retro Snake Game** (2019). Created a retro Snake Game with a graphical interface in Python using Tkinter as the GUI library.

Additional Experience and Awards

- **Merit Award for the Best Student of the City of Abrantes** (2019) Awarded in acknowledgment to my academic achievements throughout High School.
- **Best Mathematics Student Award** (2019) In honor to the 100 years of history of the firm SILVARICO, LDA.
- **NOVA University of Lisbon Summer Course** (2018) Spent two weeks working in a team project focused on Neural Networks using Python (NumPy). Final product was a character and audio recognition software.
- **National Youth Parliament Competition** (2017-2018) Lead a ten members team to the Regional Finals and after a month campaigning, was elected Vice President of the Regional Session.

Languages and Technologies

- Python (NumPy, Pandas, SciPy); Java; JavaScrip (REACT.js, Node.js); HTML and CSS; Bootstrap; Django; Git;