**Justin Sanchez**

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**EDUCATION**

**University of Michigan** **Ann Arbor, MI**

*Bachelor of Science in Engineering in Computer Science April 2023*

Coursework: Applied Computational Machine Learning, User Interface Development, Database Management Systems,

Informational Retrieval and Web Search, Software Engineering

Honors: Dean’s Honor List

**PROJECT EXPERIENCE**

**Financial Literacy Website Ann Arbor, MI**

*Lead Developer September 2022 - December 2022*

* Designed a website using HTML, CSS, and Javascript to create a user-friendly interface with the purpose of making our project accessible.
* Integrated a constantly updated stock data API to send GET requests to receive and analyze data as well as present relevant articles related to given requested stocks.
* Utilized ChartJs to visualize the stock data and present fast and accurate information.

**Brawlhalla Randomizer Ann Arbor, MI**

*Lead Developer September 2022 - December 2022*

* Developed a web application for users to customize their randomization experience in the video game “Brawlhalla”.
* Used CSS Bootstrap to make a presentable front-end and Javascript to customize various randomization methods.

**Reinforcement Learning Euchre Bot Ann Arbor, MI**

*MDST Team member January 2023 - Present*

* Learned reinforcement learning and key algorithms including Temporal Difference and Monte Carlo methods.
* Incorporated reinforcement learning to develop a bot to win at the game “Euchre” in order to apply our teaching.

**Sudoku Solver Ann Arbor, MI**

*Lead Developer March 2023 - Present*

* Created a Sudoku solver that takes in representations of Sudoku puzzles as strings and solves them with Python.
* Created a front-end website to input the proper Sudoku puzzle information to make the input process more accessible.
* Learned and utilized Flask to communicate the Python program’s parameters and output to the website.

**RESEARCH EXPERIENCE**

**College Sports Data Management Ann Arbor, MI**

*Lead Database Manager September 2018 - April 2019*

* Led my research group in extracting data from financial data reports using Adobe Acrobat and Microsoft Excel.
* Identified and analyzed outliers to investigate potential errors, develop explanations, and formulate possible conclusions.
* Presented the group's findings at a project symposium where we discussed the benefits of our research and demonstrated the usefulness of our database to facilitate easy research in college sports financial data.

**SKILLS**

*Programs:* Microsoft Office, MATLAB, Quartus, GIS, XOJO, Adobe Photoshop, Adobe Premiere, Google Suite

*Programming Languages:* Python, C++, C, Java, Javascript, HTML, CSS, Flask, SQL, Solidity

**ACTIVITIES**

Super Smash Bros Club, *Member* *September 2023 – Present*

Michigan Data Science Team, *Member* *January 2023 – Present*