Adrian Melo

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EDUCATION

University of Houston-Downtown | **Aug 2020 - May 2024**

- Pursuing Bachelor of Science in Computer Science
- Dean's Honors list

SKILLS

Languages: Python, SQL, C++, C, Go, Java, Javascript

Web Development: HTML, Django

Other: Machine Learning, Blockchain, Git, Subversion, Linux, CI/CD Pipeline, Natural Learning Processing, Algorithm Design, Complexity Analysis, Data structure Design, NumPy, Pandas, Data Pre-processing

Tools: Visuals Studios, Visual Studios Code, Microsoft Office, Adobe photoshop, Jupyter notebook

EXPERIENCE

Google |New York, NY | Software Engineer Intern |Client-Side Encryption (CSE) May - August 2023

- Implemented a shared CSE-specific preview endpoint that serves a read-only page for Docs,Slides,Sheets **(Java)**
- Refactored existing code so logic could be shared across all endpoints that need to serve read-only pages **(Java)**
- Developed the Moles feature for CSE Sheets, which allows users to open an editor (Docs, Sheets, Slides) preview inside of Google Sheets. **(Js/Java)**
- Designed **unit tests** for each component of code written

Google | Mountain View, California | STEP Intern |Counter Abuse Team (CAT) May - August 2022

- Developed a Account Status Verification Oar to validate intended punishment to account which Increased Drive file-level spam/phishing recall by 56X at 85% precision **(C++)**
- Utilizing **GoogleSQL,** read into database and parsed multidimensional features into **Google Colab** to enable scalable ML feature selection and quick reputation launches for abuse fighting **(Python, SQL)**
- Built a library which implements a data **preprocessor hook** to emit **metrics** for every client's requests and displayed live data in graph **(GO)**
- Designed **unit tests** for each component of code written

PROJECTS

Machine Learning: Covid-19 Face mask Detection Image Classification (Python)

- Developed image classifying neural network model to detect if person is wearing a Face mask.
- Implemented a convolutional neural network algorithm that effectively trained model TensorFlow/Keras.
- Achieved 80% accuracy in classifying Face mask appears on person.

Reverse Engineering: 3rd party game extension (C++)

- Developed software to read and write memory from a preexisting software.
- Implemented a bot that would continuously simulate user actions.
- Applied calculus formulas to optimally allow bot to have a 99% success rate.

Algorithms: Pathfinding Algorithm Visualizer (Python)

- Constructed a pathfinding algorithm that uses A-Star to achieve the most appropriate solution.
- Integrated pygame library with algorithm to accomplish best user experience.

Natural Learning Processing: Analysis of all presidential inauguration (Python)

- Devised an application capable of analyzing all presidential inauguration to find patterns or sentences on certain topics.
- Implemented natural learning toolkit to aid the analysis of the data.
- Provided users the capabilities of using laymen terms in order to conduct research.