Javier Arango

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Education

University of Florida **Expected Graduation: August 2023**
Bachelor of Science in Computer Science Gainesville, FL
Relevant Coursework: Advanced Programming Fundamentals, Data Structure and Algorithms

Miami Dade College **August 2017 – August 2020**
Associates Degree in Computer Science Miami, FL
Relevant Coursework: Intro to C++ Programming and Java Programming

Technical Skills

Languages: C++, Java, Python, JavaScript, TypeScript, React.js, Node.js, HTML/CSS, MySQL
Tools: Git, Jupyter Notebook, Selenium, SQLite3, Seaborn, Scikit-Learn, NumPy, Pandas, Matplotlib, Folium, SFML
Others: Bilingual (English & Spanish)

Projects

Image Compression: *Java* **September 2021**

- Implemented a lossless compression form to take advantage of datasets where elements such as bytes or characters repeat several times in a row in certain types of data such as pixel arts
- Developed routines to encode and decode raw data for images using run-length encoding

Class Attender Bot: *Python, SQLite3, Selenium* **June 2020**

- Developed a python bot to automatically join online classes on time, depending on a schedule
- Used Selenium for controlling the web browser and performing browser automation
- Created a local database using SQLite3 to store course names and schedules internally

Housing Price Prediction: *Python, Jupyter Notebook, NumPy, Seaborn, Scikit-Learn, Matplotlib, Folium* **November 2020**

- Developed a program to help college students to find the best prices of rent in Gainesville, FL
- Collected the prices data using Foursquare API and Realtor API and used Pandas for data analysis, allowing various data manipulation operations such as merging, reshaping, selecting, data cleaning, and data wrangling features
- Visualized the data with Matplotlib and Folium to show the key points of the data and used NumPy, Seaborn, and Scikit-Learn libraries to make a Clustering Model gather data points into smart groups or segments based on their attributes

Image Processing: *C++* **December 2021**

- Developed a program to process images with different blending modes such as multiply, subtract, overlay, and screen
- Used C++ to read the data from binary files, processed the data using Photoshop blending algorithms and wrote the result into a new binary file (.TGA)

Minesweeper Game: *C++, SFML* **December 2021**

- Recreated the classic game Minesweeper with all the original features such as scoreboard, randomized mine placement, revealing neighbors, cascading neighbors, and flagging tiles. Added new features such as debugging button and two test buttons to initialize the game using a preloaded board from files
- Developed the game using C++ and the library SFML to create a simple user interface
- Used the singleton design pattern to restrict the instantiation of the game object to one single instance and be able to use the same data in different objects

Certifications

IBM Data Science Specialization: Develop hands-on skills using the tools, languages, and libraries used by professional data scientists.