

# Jose William Martinez

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## Data Analytics College Graduate

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Recent graduate with a bachelor's degree in Information Sciences. Aspiring to apply strong analytical, research, and technical skills to the Data Analytics field. Seeking to leverage data analytical skills to join a team working on initiatives leveraging data, data science, and other innovative technologies.

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## Education

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**BS - Information Sciences** – University of Maryland (2019 GPA 2.86)

**Mechanical Engineering** – University of Maryland (56 Credits)

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## Skills

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- **Programming Languages:** Python (Proficient), R (Proficient), SQL (Proficient), C++ (Basic), JavaScript (Basic), HTML/CSS (Basic)
- **Cloud:** AWS API Gateway (Proficient), AWS Comprehend (Proficient), AWS Lambda (Proficient), AWS S3 (Proficient), Git (Proficient), Tableau (Proficient)
- **Operating Systems:** Mac OSX (Advanced), Windows (Proficient), Linux (Basic)
- **Software:** Microsoft Office (Advanced), Databricks (Proficient), Jupyter Notebook (Proficient), MySQL (Proficient), OpenRefine (Proficient), Postman (Proficient), R Studio (Proficient), Visual Studio Code (Proficient), Qualtrics (Basic), Github Desktop (Basic)

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## Extracurricular Activities

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Member of Society of Hispanic Professional Engineers, College Park MD September 2015 – May 2017. Worked with other members of the society to create a welcoming environment for new Society members; and assisted with the recruitment of new members.

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## Portfolio Projects

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### Conduct Sentiment Analysis of Tweets

May 2020 - Present

Conducted Sentiment Analysis of Tweets using serverless AWS services to support the back-end of an HTML site.

- Created sequence diagrams using ZenUML, and a mockup of Website using Moqup as apart of the initial research phase;
- AWS Lambda hosted the Python Script used to connect to AWS Comprehend, AWS API Gateway, AWS S3, and the Twitter API;
- Used Python to write a serverless function in AWS Lambda to connect to the necessary APIs, extract Tweet data using the Tweepy library, format JSON data, store/retrieve data from a S3 bucket, and return a response back to an API endpoint;
- The front-end of the website is made using HTML while being hosted on Github and is comprised of two main components: a form which submits a user search, and a table to display the results;
- Javascript is used to connect the website to the API endpoint hosted on AWS API Gateway, parse the JSON data, and then append the data to the HTML table.

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## Courses

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### Kaggle Data Science Course

June 2020 – Present

- Completed the 15 free courses provided by Kaggle which include courses ranging from Natural Language Processing to SQL;
- Completing the courses has allowed for a greater understanding of Machine Learning while also at the same time enhancing skills with using Python Libraries;
- These libraries include but aren't limited to Pandas, Matplotlib, Seaborn, GeoPandas, and many more;
- Currently applying knowledge from these courses to competitions within Kaggle;
- Some of these competitions include: using credit, housing, and payment data to create an algorithm that'll predict if an applicant can pay off their loan; and
- Using Natural Language Processing to build a NLI model that assigns labels to pairs of premises and hypotheses;
- Created a map of the U.S. displaying sentiments of tweets using a large dataset provided from one of the courses, cleaned the data using OpenRefine, and manipulated the data using Pandas;
- Link: [public.tableau.com/profile/jose.martinez1#!/vizhome/TweetSentiment\\_15998434313980/Dashboard1](https://public.tableau.com/profile/jose.martinez1#!/vizhome/TweetSentiment_15998434313980/Dashboard1)
- Certifications of completion can be provided upon request.

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## Internship and College Experience

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### The Department of Energy (DOE) – Washington, DC

May 2018 – October 2018

The mission of the Energy Department is to ensure America's security and prosperity by addressing its energy, environmental and nuclear challenges through transformative science and technology solutions.

### Intern, National Nuclear Security Administration (NNSA)

May 2018 – October 2018

Junior Year Internship with The Human Resources Department at the National Nuclear Security Administration (NNSA) a semi-autonomous agency within the U.S. Department of Energy responsible for enhancing national security through the military application of nuclear science.

- Assisted in the creation of the Executive Resource webpages;
- Maintained various administrative reports and databases;
- Prepared spreadsheets and PowerPoint presentations for the Director of the Human Resources;
- Provided general administrative support and other-directed tasks to the head of Executive Resources Division;
- Assisted in office tasks such as creating/maintaining documents, organization charts, and faxing/scanning documents; and
- Ensured benefits and retirement accountability by supporting the Executive Resources Division with the executive and staff benefit plans.

### University of Maryland – College Park, MD

July 2015 – December 2019

As a student pursuing a bachelor's degree, initially in Mechanical Engineering, Mr. Martinez was able to develop further Classroom experiences listed below.

### Team Lead

September 2019 – December 2019

Conducted Analysis to Determine if Gentrification Impacts Criminal Activity in DC.

- Worked with a 4-student team to conduct an analysis of datasets provided by [opendata.dc.gov](https://opendata.dc.gov/);

- Used pre-existing datasets that related to Building Permits, Finances, and Criminal Activity within DC;
- Data cleaning was performed in OpenRefine to both reduce the datasets and to ensure data was useable;
- Utilized Python to read in datasets, create data frames using Pandas library, and create a visualization using Matplotlib library;
- To supplement the visualizations used in Matplotlib, Tableau was used to create more meaningful visualizations/dashboards;
- Lastly, created a python notebook using Jupyter Notebook that detailed the steps that were taken throughout the analysis, the results of the analysis, and a discussion of what the results entailed.

#### **Member/Developer**

**September 2019 – December 2019**

Member of a Project team to leverage Qualtrics to create a Survey for Prince George's County Parks & Rec Department.

- Worked with a 4-student team to create a survey to increase participation and promote inclusivity of underrepresented communities in PG county;
- Was in charge of keeping the group on track for completing milestones due to very strict timeline, served as the liaison between the Latino community and the group, and conducting the survey testing;
- Initial research was conducted in an attempt to create a survey that was engaging and information-seeking;
- Two rounds of survey testing were carried out with Latino members of the PG community;
- Lastly, close contact was kept with the client to ensure that they involved with the survey design; and
- a set of deliverables were passed on to the client so that it may be administered at sanctioned events and posted to their website.

#### **Member/Developer**

**September 2018 – December 2018**

Member of a Project team to leverage APIs to analyze social network data.

- The goal of the project was to successfully connect to an API and conduct any type of analysis on the collected data. As a result, my team took on the challenge to connect to Twitter's API by using the library Tweepy;
- Python was used to develop the code, and the code was split up into two classes: one for connecting to the API and retrieving the data in the form of a list, and the second class' purpose was used for analysis;
- Pandas were used to create data frames that would allow us to analyze the data, and the Matplotlib library was used for creating our data visualizations.

#### **Member/Developer**

**September 2018 – December 2018**

Member of a Project team to leverage MySQL to set up a Database for a Hypothetical Small Retailer.

- Worked with a 3-student team to create a working database and developed nine tables that were linked to one another through primary and foreign keys;
- MySQL Workbench was used to create the database and to populate it with data we used Microsoft Excel. Once the data was completed, the team extracted it in a CSV format and uploaded it to MySQL Workbench; and
- Lastly, to test that the database was working, we came up with several SQL queries to ensure that all aspects of the database were working.