MARIA VAGHANI

(e) maria.vaghani@gmail.com || (m) 662-617-1105 || Github || LinkedIn || New York City

Skills

- Ruby on Rails, JavaScript, React, Redux, HTML, CSS, Sass, Mongoose, MongoDB, Node.js, Express.js, jQuery
- RSpec, Object-Oriented Programming, Google Maps API, AWS
- Python, Pandas, Matplotlib, Sklearn, Seaborn, SQL, PostgreSql, Recommendation Systems, Deep Learning
- Machine Learning: Regression, Decision Tree, Random Forest, GBM, KNN, PCA, Clustering, NLP, ETL Pipeline

Recent Projects

CIPHER (GitHub | Live) - *Node.js, Express, React, Redux, JavaScript, HTML5, CSS3, MongoDB, Mongoose* **2021**

- Implemented an algorithm that manages user notifications and group invites
- Implemented User Auth by encrypting user details via the JSON Webtoken library to be sent over HTTP using Axios to be decrypted via the JWT-Decode library on the frontend
- Wrote model level validations to check for inclusion of password/email upon login using the Validator.js library
- Effectively collaborated in a team of four utilizing Git workflow, protected main branch, creating and approving pull requests, as well as managing merge conflicts
- Utilized Node.js and Axios to create requests to database with Mongoose to manage response sent to frontend

Docuflix (GitHub | Live) - *Ruby on Rails, React, Redux, JavaScript, HTML5, CSS3, Postgres, Webpack, AWS* **2021**

- Designed a real-time search for movie titles that pulls results from database using custom SQL queries
- Implemented multiple CRUD functionality, including creating watch lists and watch profiles, updating user information
- Used AWS to store media files, allowing for better scalability of the app
- Utilized Ajax to send requests to database and Rails Active Record to manage response

Who Stole the Apple (GitHub | Live) - *JavaScript* **2021**

- Implemented HTML canvas and requestAnimationFrame to dynamically generate animation of the game
- Implemented interactive coding environment with drag and drop on canvas with a snap to grid feature and ability to snap to the initial position on a drop to a wrong location.

Customer Segmentation of Starbucks Customers (GitHub | Report Article) - *Python* **2021**

- Analyzed and removed falsely classified offer completion status based on customer purchase behavior
- Implemented Machine Learning algorithm to accurately predict how a customer would behave in response to different kinds of offers sent through Starbucks app.

Recommendations with IBM (GitHub) - *Python* **2021**

- Analyzed interactions users have with articles on the IBM Watson Studio platform, and make recommendations to them about new articles they will like based on their previous activity
- Utilized the following algorithms and concepts: rank-based filtering, user-user based collaborative filtering, content based recommendation and matrix factorization.

Disaster Response message classification - NLP (GitHub | Live) - *Python, Flask, JavaScript* **2021**

- Created the web app that lets a user input a message and instantly get a possible category based on training data. The mean accuracy score (f1 score) for all categories is 0.686.
- Utilized NLP pipeline to tokenize and analyze user input to identify possible category of a user input message

Employee Compensation in SF Prediction (GitHub | Report Article) - *Python* **2021**

- Cleaned up data, organized and formatted data; Python, Pandas, Numpy, matplotlib, dummy variables
- Separated data by job families within each department, created a series of models for each job family

Credit Card Default Prediction (GitHub) - *Python* **2020**

- Generated new Features based on existing features that would better describe financial situation of the customers and their likelihood to default the next payment
- Reached the accuracy of 82.74%, using Random Forest Feature Importance and RandomizedSearchCV

NYC Open AirBnB Cost Prediction (GitHub) - *Python* **2020**

- Removed data outliers, normalized the data to better fit the model

MARIA VAGHANI

(e) maria.vaghani@gmail.com || (m) 662-617-1105 || Github || LinkedIn || New York City

- Generated new features based on listing locations and locations of the nearest subway stations and attractions to study their influence on listing prices
- Reached the accuracy of 93.66% and Average error of 0.299, using Random Forest Feature Importance and RandomizedSearchCV

Student Loan Exploratory Data Analysis (GitHub) - *Python* **2019**

- Using open government student loan statistics data, performed analysis on average amount of loans per state, lowest and highest spending on college education states, average distribution of types of loans
- Used Choropleth maps (Plotly) to illustrate average amount in loans per loan recipient per state

Work Experience

Blair Mui Dowd Architects **Junior Architect** **03/2019-now**

- Automated generation of construction document reports using Python, Numpy, Pandas, and OpenPyXL, that resulted in reducing 95% of time spent on the task and eliminating the possibility of human error in data transfer
- Coordinated construction of major hospital renovation with a budget of $11million, reviewed construction administration documents
- Developed a three-phase master plan and schematic design set for a renovation project of three MRI magnets replacement, including schematic design of an MRI-assisted Operating Room
- Developed an object-oriented Revit system to create a responsive model to efficiently generate construction drawings to adapt to changing client requirements and requests

Undergraduate Research Assistant **Advisor: Dr. Farshid Vahedifard** **2017**

- As a part of research team in NSPARC at MSU, analyzed historical data on electrical outages; analyzed resilience of the electric utility grid in the Southeastern United States, using Matlab, Excel, Python
- Performed calculations on natural reserve storage data and generated maps (Excel, Seaborn) on conversion of Natural Gas Storage into Compressed Air Energy Storage; published research in Environmental Geotechnics Journal

Education

Computer Science - App Academy **2021**

- Immersive software development 1000+ hour course with focus on full stack web development
- Software engineering course with < 3% acceptance rate. Studied TDD, algorithms, OOP, REST, single-page apps, security & more

Data Scientist Nanodegree - Udacity **2021**

Bachelor of Architecture with minor in Civil Engineering - Mississippi State University (MSU) **2014-2018**

Online Classes: **2019-2021**

- Udemy: Complete Python Bootcamp: From Zero to Hero in Python 3, Python for Data Science and Machine Learning Bootcamp, Machine Learning A-Z: Hand-On Python & R in Data Science, Data Analysis Bootcamp™ 21 Real World Case Studies, The Complete SQL Bootcamp 2021: Go from Zero to Hero

Udacity - Statistics