AVIRAL CHOUDHARY

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EDUCATION

University of Maryland, College Park Graduation : Anticipated May 2021
Bachelor of Science, Computer Science & Statistics GPA: 3.62 / 4.0

COURSEWORK
Machine Learning, Data Structures I/II, Data Science, Algorithms, Distributed Systems, Programming Languages, Computer Systems, Discrete Math, Linear Algebra, Probability, Statistics, Calculus I/II/III

LANGUAGES
Python, JavaScript , R, Java, C, SQL
TOOLS AND FRAMEWORK
React, Node.JS, Django, UNIX, Git, Data Analysis and Viz., SAS

EXPERIENCE

Software Engineering Intern Jul. 2020 - Sep. 2020
SpringGem Weather Information, MD

- Developed a cross-platform react native mobile application for navigation in dangerous conditions
- Implemented geofencing to alert users of hazardous road conditions in advance
- Tech Stack : JS, React Native, Expo, Google Maps API, OpenWeather API

Teaching Assistant, Data Structures I Aug. 2019 - Present
CS Department, University of Maryland

- Helped over 500 students design and implement data structures in Java
- Topics covered: stacks, queues, binary search trees, heaps, graphs
- Graded exams, quizzes, and projects

PROJECTS

Pearish
- Developed an application to help users in keeping track of expiry dates of perishable food items
- Used NLP to identify the food items from the scanned receipt to get an approx. expiry date
- Tech stack: Python, Pandas, Spacy, OCR Space

Analysis of Airbnb and Crime Rate
- Scrapped 33,000 listings from the Airbnb website to use as data points
- Examined how different factors like crime rate affect price of a listing
- Tech stack: Python, Sklearn, Pandas, Numpy, Mapboxgl, Juytper Notebook

Flarenalysis
- Engineered a data pipeline to analyze NASA's coronal mass ejection (CME) data set
- Successfully predicted the top 50 halo events
- Tech stack: Python, Pandas, Numpy, Seaborn

MeeshQuest
- Implemented a Java backend for a world map supporting navigation
- Data structures: AVL, Red-Black, and PM-Quad Trees
- Algorithms: Dijkstra's (shortest routes), Prim's (closest points)

ACADEMIC ACHIEVEMENTS

- Awardeds Dean's List in Fall 2017, Spring 2018 and Spring 2020 for a semester GPA greater than 3.5