Aviral Choudhary

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EDUCATION

UNIVERSITY OF MARYLAND

BS in Computer Science & Statistics
Anticipated December 2021
College of Computer, Mathematical, and Natural Sciences
GPA: 3.61 / 4.0

LINKS

Github:// **aviralch**
LinkedIn:// **aviral-choudhary**
Twitter:// **@A_Viral_Ch**

COURSEWORK

COMPUTER SCIENCE

Machine Learning
Adv. Data Structures
Algorithms
Distributed Systems
Computer Vision
Networks and Security
Programming Languages
Computer Systems
Data Science
Data Structures

STATISTICS

Discrete Math
Linear Algebra
Calculus I,II & III
Applied Probability & Statistics
Probability Theory
Statistical Computing w. SAS
Sampling Theory

SKILLS

PROGRAMMING

Java • Python • Javascript
C • R • CSS • SQL • Assembly
Matlab

TOOLS & FRAMWORKS

React • Node.JS • Django
UNIX •Git •Data Analysis and Viz.
SAS

AWARDS

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

EXPERIENCE

SPRINGGEM WEATHER | Software Engineering Intern

September 2020 - Present | Remote

- Used Machine Learning to improve weather predictions and road forecast to help with driving safely
- Scrapped and cleaned data from NOAA, RWIS datasets
- Python, Selenium, Pandas, Django

SPRINGGEM WEATHER | Software Engineering Intern

July 2020 - August 2020 | Remote

- 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

COMPUTER SCIENCE DEPT. | Teaching Assistant

Aug 2019 – Aug 2020 | MD

- Helped over 500 students design and implement data structures in Java
- Developed a cross-platform React Native mobile application for navigation in dangerous conditions
- 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

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

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

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)

RESOURCE MANAGER

- Implemented a distributed resource management framework based on the actor model
- Simulated concurrent reads, exclusive writes, and access/release requests
  Stack: Java, Akka