

# Aviral Choudhary

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## EDUCATION

### UNIVERSITY OF MARYLAND BS IN COMPUTER SCIENCE & STATISTICS

Anticipated May 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

Discrete Structures

### STATISTICS

Linear Algebra

Calculus I, II & III

Applied Probability & Statistics

Probability Theory

Statistical Computing w. SAS

Sampling Theory

Differential Equation

## SKILLS

### PROGRAMMING

Java • Python • JavaScript

C • R • CSS • SQL • Assembly

Matlab

### TOOLS & FRAMEWORKS

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

July 2020 - Present | Remote

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

### COMPUTER SYSTEM (C) | TEACHING ASSISTANT

June 2020 – Aug 2020 | MD

- Taught around 200 students the fundamentals of Computer Systems
- Topics Covered : UNIX, pointers, process control, system - IO, data structures, assembly, dynamic memory management
- Graded exams, quizzes, and projects

### DATA STRUCTURES I (JAVA) | TEACHING ASSISTANT

Aug 2019 – May 2020 | MD

- 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

### DANKTANKS.IO

- Contributor to a DankTanks.IO
- An online web-based game featuring realtime-multiplayer 2D tank battleground
- Play now at <https://danktanks.herokuapp.com/>

### PEARISH

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

### FLAREANALYSIS

- 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, Jupyter 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)