# SAHIR MODY

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## **EDUCATION**

University of Maryland • College Park, MD

August 2018 – May 2022

Bachelor of Science in Computer Science with Business Analytics Minor • Cumulative GPA: 3.96/4.0

## TECHNICAL SKILLS

Programming Languages: Java Python C HTML CSS JavaScript OCaml Ruby SQL R

Libraries/Frameworks: Flask Keras Scikit-Learn Pandas jQuery Express C3.js Chart.js Angular

Technologies/Softwares: Node.js | GitHub | LaTeX | Heroku | Amazon Web Services | Google Suite | Microsoft Office

Relevant Coursework: Object-Oriented Programming (Discrete Math) (Computer Systems) (Algorithms and Analysis

Programming Languages and Paradigms (Machine Learning

# EXPERIENCE

## Teaching Assistant @ University of Maryland Computer Science Department

January 2021 - May 2021

- Taught discussions for CMSC351 Algorithms, a fundamental computer science course about algorithmic design and analysis
- Managed course webpage and communications with students, as well as organized and facilitated curriculum review sessions

# Computer Science Tutor @ Iribe Initiative for Diversity & Inclusion

September 2020 – December 2020

- · Conducted 1-on-1 tutoring sessions focused on object-oriented programming, functional programming, and algorithms
- Led group study sessions covering various topics including regular expressions, OCaml programming, and web security

#### Software Engineering Intern @ Capital One

June 2020 – August 2020

- Engineered a software usage analytics dashboard application with JavaScript and Python using Agile development practices
- Created API routes to process results of company-wide database queries quickly and format data for dynamic visualizations

# System Administrator @ University of Maryland Physics Department

August 2019 – May 2020

- · Coordinated a team of students to efficiently install various networking softwares across several computing cluster servers
- · Assisted professor in managing hundreds of computing cluster user accounts and upgrading cluster server operating systems

# Software Engineering Intern @ Capital One

June 2019 – December 2019

- Wrote Python scripts in Jupyter Lab to process 2,000+ cybersecurity events and find patterns indicating suspicious behavior
- Redesigned language processing and data visualization app to be more intuitive and user-friendly using C3.js and Angular

#### Undergraduate Researcher @ First-Year Innovation & Research Experience

January 2019 – May 2019

- Researched methods for pre-processing image sets and neural network architectures for instance segmentation and tracking
- Applied machine learning methods to sets of 10,000+ data points using Scikit-Learn to find the most successful algorithm

# **PROJECTS**

#### Moodbird Satisfaction Dashboard

- Built an API with Flask to perform sentiment analysis on thousands of recent tweets based on search terms and created an interactive graphical dashboard with Chart.js to retrieve and summarize the analysis results in simple visualizations
- Placed in the Top 3 of 10 teams at the Capital One Software Engineering Summit Hackathon

### jSearch Web Application

• Deployed an application on Heroku to allow users to search for 100,000+ archived Jeopardy questions based on responsive filters created with iQuery and mark certain questions as favorites so that they can be saved and returned to in another session

# Machine Learning Stock Predictor

• Implemented a web application tool to retrieve and pre-process a company's historical stock data with Pandas, train a neural network created with Keras, and display line graphs of the model's predictions after each epoch of training with C3.js