# Sahil Chowdhury

Interested in pursuing financial technology and ML

## **EDUCATION**

## University of Texas at Austin

August 2023 - Present

Computer Science and Statistics Double Major

## •Dulles High School - Math & Science Academy

Valedictorian (1/562)

August 2019 - May 2023 GPA: 4.7/4.0

## PERSONAL PROJECTS

## •Flight Tracker

Python, SMTP Library, Flight API, Google Sheets API, HTML/CSS, BootStrap, SQL

- Used Tequila API to track the cheapest price from city A to B over a 6 month period
- Send email updates using SMTP Library if a cheap flight is found
- Developed user interface to allow user to select flight and see results

#### •Stock Price Alerter

Python, Twilio, Stock & News API

- Monitors a stock and sends an text message alert using Twilio if a stock's price changes by more than 5% by querying the Alpha Vantage API
- Texts the user daily about the top 3 most relevant news articles regarding a stock with the News API

# •Deep Q-Learning with Cartpole Agent AI

Python, TensorFlow

- Trained a deep learning model using TensorFlow with the objective of balancing a pole protruding from a car by only moving the car left or right on straight ground
- Implemented agent's memory, reward function, and learning algorithm in Python

## •Nintendo Switch Buyer Bot

Python, PRAW (Python Reddit API Wrapper), Twilio, SQL, spaCy

- Found cheap selling Nintendo Switches on Reddit using PRAW and spaCy for Natural Language Processing
- Implemented automated phone calling system for successful deals and utilized SQL for storing them
- Achieved 3x ROI, turning \$300 into \$1000+ via strategic reselling.

# EXPERIENCE

# -MDAnderson Bioinformatics Lab

 $May\ 2022\ \hbox{--}\ January\ 2023$ 

 $Jupyter\ Notebook,\ R,\ MATLAB$ 

- \* Performed Gene Set Enrichment Analysis (GSEA) to find genes correlated to blood cancer in hospital patients
- \* Designed and hyper parameterized various ML models (multilayer perceptrons, SVMs, decision trees, random forests, XGBoost, logistic regression models) to create high-performing cell classifiers on a training set of 60,000+ cells using a MDAnderson's High Throughput Computing Cluster

# -Coding For Medicine Research Group

Dec 2022 - Feb 2023

 $Python,\ Linux,\ MUSCLE,\ BLAST,\ Beautiful Soup,\ R$ 

- \* Published a scientific literature review project regarding the high AG content in parasitic plants Balanophora under PhD Manoj Samanta
- \* Scraped gene data from the NCBI using BeautifulSoup

## TECHNICAL SKILLS AND INTERESTS

Languages/Tools: C++, Python, Java, HTML/CSS, Linux, Git/Github

Frameworks/Databases: Flask, SQL, Postgresql

## AWARDS/POSITIONS

- \* NMSQT Scholarship Winner for exceptional academic performance and community service (awarded to only 7,500 students per year), 3x AIME Qualifier, USACO Silver, Top 7% in international math competition (Purple Comet)
- \* Top 5 students out of 100 to win the \$2,000 Fort Bend Medical Society scholarship for community and medical contributions
- \* Raised \$19,000 for a club through advertising to local organizations and community service events
- \* Computer Science Club and Science National Honor Society President