# AAYUSH KAMATH

in LinkedIn O GitHub O Portfolio

# **EDUCATION**

Columbia University, New York, NY

Jan 2022 - May 2023

M.S. in Computer Science

Sardar Patel Institute of Technology, Mumbai, India

Aug 2017 - May 2021

B. Tech. in Information Technology

## SKILLS

Programming Languages: Python, SQL, R, Java, C, JavaScript

Web Dev Frameworks: HTML, CSS, Bootstrap, MySQL, PostgreSQL, React, Django, Nodejs.

Python Libraries: Pandas, TensorFlow, PyTorch, Scikit Learn, Keras, Matplotlib, NumPy, OpenCV.

Developer Tools: Git, AWS, Google Colab, VS Code, R Studio, Tableau, MS Excel.

Other: Computer Vision, Natural Language Processing, Communication Skills.

#### WORK EXPERIENCE

# • ICPC Foundation | Software Engineer Intern

Aug 2023 - Present

• Engaged in enhancing data structures and algorithms proficiency through competitive coding problems and contests on Codeforces and Leetcode.

# • Aptitude (Columbia Business School) | Software Engineer Intern

May 2022 - Aug 2022

- Streamlined verification workflow for tenant background checks by incorporating Plaid API with Python and Django, facilitating secure and rapid validation of prospective tenants' banking credentials, significantly bypassing manual processing time of few days.
- Enhanced login efficiency by developing a User Authentication module using Firebase Authentication API, achieving a 40% improvement in account access speed.
- Initiated the development of **blockchain smart contracts** for tenant rental applications using the Solidity framework, incorporating approval checkpoints for token generation and process automation.

# PROJECTS

# • Investment Portfolio Management using Machine Learning | Github Repo Feb 2023 – May 2023

- Crafted an **interactive dashboard** using React for front-end data visualization, with Django REST for backend API integration, facilitating machine learning and deep learning models' insights.
- Deployed LSTM and regression models for forecasting S&P 500 stock prices by training on a **decade's worth of large-scale time series data**.
- Strategized stock management for long-term investment portfolios by employing Mean Variance Optimization, which facilitated the development of sector-specific portfolios. This approach minimized risk while achieving a **20% annual return on investment**.

## • Coffee Factory | Web App for Coffee shops | Github Repo

Feb 2022 - May 2022

- Established a comprehensive **review aggregator ecosystem** comprising of hundreds of coffee shops with features such as User Profile, User Reviews, Search, Filter by Categories and Shop details.
- Engineered a scalable web application with React, hosted on AWS Amplify, ensuring efficient data handling with a back-end supported by S3 Bucket and DynamoDB for real-time analytics.
- o Integrated Services/APIs: AWS (Cognito, Amplify, Dynamo DB, S3 Bucket, etc.), Google Reviews API, Google Maps API, React.

# • Dining Concierge | Restaurant Recommendation Chatbot | Github Repo Jan 2022 - Feb 2022

- Engineered a comprehensive AWS-based full stack web application to recommend multiple restaurants tailored to user preferences for cuisine, time, and location.
- o Designed a conversational Amazon Lex bot for dynamic restaurant recommendations, integrating user intents.
- Leveraged a suite of AWS services including Amazon Lex, Elasticsearch, DynamoDB, SQS, SNS, and AWS Lambda, along with Yelp API, to build a robust and responsive solution.

#### CERTIFICATIONS

## • IBM Data Science Specialization | Certificate

Apr 2020 - July 2020

• Pursued and completed a 9-course specialization, encompassing Data Analysis with Python, Machine Learning with Python, Data Visualization with Python, and culminating in an Applied Data Science Capstone Project.