

AAYUSH KAMATH

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in [LinkedIn](#) [GitHub](#) [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 Development Frameworks: HTML, CSS, React, MySQL, PostgreSQL, NoSQL, Django, Node.js, Bootstrap, Angular.
Python Libraries: Pandas, TensorFlow, PyTorch, Scikit Learn, Keras, Matplotlib, NumPy, OpenCV.
Developer Tools: Git, Amazon Web Services, Google Colab, VS Code, R Studio, Tableau, MS Excel.
Other: Computer Vision, Natural Language Processing, Communication Skills, Agile.

WORK EXPERIENCE

- **Remotasks (Scale AI) | Freelance Software Engineer** Feb 2024 - Present
 - Testing model's outputs to ensure they meet quality standards by maintaining code consistency, formatting, and structure of prompts and responses, **achieving a consistency score of at least 90% across all tasks.**
 - Training models by **Reinforcement Learning through Human Feedback (RLHF)**, allowing for both text and code responses to be streamlined as per the task by debugging and making corrective edits to the model's responses based on the framework or programming language.
 - Reviewing and adjusting user prompts and model outputs to uphold task structure and mitigate biases in the LLM's responses, **maintaining an alignment score of 80% or higher for the given prompt.**
- **ICPC Foundation | Software Engineer Intern** Aug 2023 - Present
 - Engaged in enhancing data structures and algorithms proficiency through solving competitive coding problems and participating in discussions for Codeforces problem sets in 1600 - 2000 rating range.
 - Participating in Leetcode Contests with a **1600+ Rating and top 20% overall standing in contests.**
- **Aptitude (Columbia Business School) | Software Engineer Intern** May 2022 - Aug 2022
 - Streamlined the tenant background check process by **utilizing React to develop an interactive front-end user interface** for the Rental Application Portal, enhancing the overall verification workflow.
 - Facilitated secure and rapid validation of prospective tenants' banking credentials by incorporating **Plaid API with Python and Django**, **significantly bypassing manual processing time of a few days.**
 - Enhanced login efficiency by developing a User Authentication module using Firebase Authentication API, achieving an **improvement in account access speed by 40%.**
 - Initiated the development of **blockchain smart contracts** for tenant rental applications using the Solidity framework. This involved interacting with a cross-functional team to ensure seamless end-to-end integration of 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 **utilizing React for building three major data visualization components**, with Django REST for backend API integration, facilitating machine learning and deep learning models' insights.
 - Deployed LSTM and regression predictive 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 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 hundreds of coffee shops with features such as User Profile, User Reviews, Search, Filter by Categories, and Shop details along with data pipeline for frequent updates.
 - 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 as database for real-time analytics.
 - 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.
 - 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

- **Introduction to Probability and Data with R | [Certificate](#)** Sep 2020 - Oct 2020
 - Acquired foundational skills in R programming, focusing on statistics, probability, data modeling and exploratory data analysis through a comprehensive course offered by Duke University.
- **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](#).