Shreyas Bhat

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Education

Columbia University New York, NY
MS in Computer Science | GPA: 4.0/4.0 Sep 2022 – Dec 2023
Coursework: Applied Machine Learning, NLP, Causal Inference, Neural Networks and Deep Learning, Algorithms

Indian Institute of Science Bangalore, IN
BS in Mathematics | GPA: 9.1/10.0 Aug 2018 – June 2022
Coursework: Data Analysis, Reinforcement Learning, Probability Models, Probability and Statistics, Linear Algebra
Honors: KVPY fellow - Fellowship awarded to 1000 students among 1,000,000 applicants for excellence in technology

Experience

JPMorgan Chase Feb 2024 - Present
Quantitative Analytics Associate New York, NY

- Collaborated with internal stakeholders and cross-functional teams to develop a custom dataset for deposit model documents, model issues, and metadata, to fine-tune and evaluate the internal LLM document assistant.
- Researched and built a forecasting model for daily checking and savings account balances, achieving a 10% increase in accuracy by replacing a linear regression model with XGBoost.
- Developed Python notebooks for annual stress testing of two deposit forecasting models under three CCAR scenarios, generating visualizations for severely adverse, adverse, and baseline cases.
- Developed budget forecasts using predictive models, incorporating business overlays and one-off events such as bank failures; visualized insights through graphs and presentations, delivering findings to the Head of Department.

JPMorgan Chase June 2023 – Aug 2023
Quantitative Analytics Intern Jersey City, NJ

- Collaborated with the risk management team to implement a time-series regression-based forecasting model for predicting global liquidity trends over a 10-year horizon.
- Implemented a benchmark regression model using weighted least squares and optimized feature selection, improving predictive accuracy by 10%.

Columbia University Sep 2022 – May 2023
Teaching Assistant New York, NY

- TA for NLP with Prof. Daniel Bauer and computational linear algebra with Prof. Daniel Hsu. Responsible for collaborating with 10 TAs to conduct office hours and recitations, create and grade exams and assignments.

Projects and Research

Buddy!- The Friend Matching App Sep 2022 – Dec 2022

- Automated and developed an ETL pipeline for data collection to periodically scrape and collect event data using Eventbrite API and AWS EventBridge and store it
- Finds nearby friends based on location and similar interests and displays them in real-time using JavaScript.
- Created a real time chat functionality to connect all users going to an event

Image Caption Generator Dec 2022 – Dec 2022

- Trained a bidirectional LSTM language generator on caption data and a decoder function for the generator output
- Created a 300-vector image representation using an off-the-shelf image encoder and used it as an input to the LSTM model to generate captions for a given image using TensorFlow

Photo.ly - A Photo Searching Application Nov 2022 – Dec 2022

- Built a photo search application leveraging AWS Services. Used Amazon Rekognition to label the image, Amazon Lex to extract keywords and Amazon Transcribe to add voice-search capability
- Built a front-end on S3 with AWS Cloud-Front enabled, ensuring scalability and HTTPS web-sockets support

Dining Concierge Sep 2022 – Sep 2022

- Created a full-stack web application on AWS using NLP to recommend relevant restaurants to customers based on previous orders, cuisine and time slots using HTML, CSS, JavaScript, DynamoDB and ElasticSearch

Technical Skills

Languages/Databases: C, C++, Python, MySQL, MongoDB, Neo4j, Snowflake, DataBricks, Pinecone
DevOps/ Big Data: Docker, Spark, Kubernetes
Libraries: Pandas, NumPy, MatPlotLib, TensorFlow, PyTorch, SciKit-Learn, Langchain
AWS: Lambda, EC2, S3, Lex, DynamoDB, Cognito, CloudWatch, CloudSearch, ElasticSearch