Shreyas Bhat

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EDUCATION

Columbia University New York, NY
MS in Computer Science Sep 2022 – Dec 2023
GPA: 4.165/4.00
Coursework: Cloud Computing and Big Data, NLP, Algorithms, Advanced Databases, Networks, Computer Vision

Indian Institute of Science Bangalore, IN
BS in Mathematics Aug 2018 – June 2022
Coursework: Data analysis and visualization, Reinforcement learning, Algorithms and programming
Honors: KVPY fellow - Fellowship awarded to 1000 students among 1,000,000 applicants for excellence in technology

EXPERIENCE

Teaching Assistant Sep 2022 – Dec 2022
Columbia University, CS Department New York, NY
- TA for computational linear algebra with Prof. Daniel Hsu. Responsible for collaborating with a group of 10 TAs and conducting weekly office hours, creating and grading exams and home works

Machine Learning Intern Jan 2021 – May 2021
Vivitsu Laboratory Bangalore, IN
- Designed a self-learning agent to perform robotic tasks with reinforcement learning algorithms in python, conducted runs on 14 environments, reduced time complexity by 10% compared to Deep Q-learning algorithms
- Integrated agent to OpenAI and Mujoco environments; conducted simulations on AWS servers and spearheaded weekly presentations and project update meetings
- Received the PMRF (prime minister research fellowship - awarded to 500 best project proposals across the country by the government of India) in 2021 for advancement in AI technologies

PROJECTS

Serverless, micro-service driven Chat Bot Sep 2022 – Dec 2022
- Developed a full-stack web application on AWS using Lex to recommend relevant restaurants to customers based on previous orders, cuisine and time slots
- Implemented front-end in CSS and JavaScript, hosted on an S3 bucket, which can scale to thousands of users
- Utilized DynamoDB to store data of restaurants scraped from Yelp API, parsed user queries using elasticSearch

Image caption generator Dec 2022 – Dec 2022
- Trained an bidirectional LSTM language generator on caption data and a decoder function for the generator
- 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

Photo.ly - A Photo Searching Application Nov 2022 – Dec 2022
- Developed a photo searching 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 frontend on S3 with AWS CloudFront enabled, ensuring scalability and HTTPS websockets support

Shell in C Aug 2022 – Aug 2022
- Designed and implemented a shell in C to read and execute commands including change directory, help and exit. Parsed input data using tokenization

Web scraping and subreddit classification May 2022 – May 2022
- Functionalized a web scraping tool in PRAW to gather posts from different subreddits; trained an NLP model to detect its subreddit of origin, sorting accurately in over 75% of instances.

Algorithms Developer | *IIT Madras* Jan 2022 – May 2022
- Developed a parallelization algorithm to cover edges in bounded graphs enabling a significant improvement in time complexity while covering a higher percentage of edges compared to FPT algorithms for degree 4 graphs.
- Collaborated with a team of 5 and organized weekly paper reviews and presentations on project updates.

TECHNICAL SKILLS

Languages/Databases: C, C++, Python, MySQL, MongoDB, Neo4j
Web/Big Data: HTML, CSS, OpenAPI, Javascript, REST, Docker, Spark, Kubernetes
Libraries: Pandas, NumPy, Matplotlib, Tensorflow, Pytorch
AWS: Lambda, EC2, S3, Lex, Dynamo DB, Cognito, CloudWatch, CloudSearch, ElasticSearch