Prachitee Maratkar

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Education

University of Colorado Boulder **August 2022 – May 2024**
Master of Science in Computer Science *Boulder, CO*

Cummins College of Engineering (Savitribai Phule Pune University) **August 2016 – October 2020**
Bachelor of Technology in Information Technology *Pune, India*

Work Experience

TEAM Services Group **June 2023 – Present**
Data Engineer Intern *Golden, CO*

- Analyzed, streamlined and transformed financial reporting data by building ELT processes and robust data models using Oracle NetSuite ERP, Fivetran connector, Snowflake data warehouse, and Data Build Tool (DBT).
- Implemented advanced ingestion pipelines using Azure Blob Storage, Azure Data Factory and Azure Function apps, and further collaborated with the Finance team to create visually appealing dashboards using Sigma and Power BI tools, increasing efficiency by 40% and improving the decision-making process.

UBS **August 2020 – October 2021**
Software Engineer *Pune, India*

- Revamped a business-critical application by incorporating a data processing pipeline using Logstash and Apache Kafka, reducing real-time instrument and trade level event processing time by 25%, resulting in faster trading activity and decision-making.
- Designed and deployed microservices for several application instances in APAC, EMEA & AUS regions using Azure Kubernetes Service and Pivotal Kubernetes Service, resulting in improved scalability of the applications and increased system availability by 20%.
- Developed a reusable Java-based utility to manage secure credentials for 150+ business-critical applications with HashiCorp Enterprise Vault expertise. This eliminated manual credential management errors, increasing system security compliance by 30%.
- Improved processing by 70% through containerizing and re-engineering a SpringBoot-based reporting application, utilizing EhCache as an in-memory data storage solution backed with PostgreSQL based database system.

UBS **May 2019 – July 2019**
Software Developer Intern *Pune, India*

- Enhanced the development lifecycle of multiple applications by implementing DevOps practices, resulting in a 15% increase in deployment frequency and reducing lead time to market by 80% using Kubernetes, Docker, Puppet, and Gitlab.
- Streamlined various migration tasks by writing automation scripts with Bash scripting and Python, reducing manual effort by 60% across all applications.

Projects

Soundscape: A song recommender system **February 2023**

- Collaborated with a team of 6 members to develop a web application that utilizes the Million Song Dataset from Spotify to generate personalized playlists based on user input.
- Developed the backend engine for computing cosine similarity scores using Pyspark on GCP's Dataproc service and implemented genre-level partitioning of the corpus by utilizing GCP storage Buckets, resulting in accurate generation of recommended playlists.
- Created a user-friendly frontend with ReactJS and integrated it with the backend using Flask APIs, ensuring a seamless user experience.

Automated sign language recognition system for emergency situations **November 2022**

- Implemented a state-of-the-art deep learning solution to classify long-range video sequences of Indian Sign Language gestures into eight emergency word categories, achieving an accuracy performance of 96%.
- Utilized the pretrained Vision Transformer ViT model for feature extraction and implemented a BiLSTM network for sequence classification, optimizing the solution's accuracy by 15% compared to previous models.
- Developed the solution in Python language using HuggingFace, Tensorflow and Keras libraries for building the model, along with other libraries like Pandas, OpenCV, Katna to effectively process and analyze large amounts of video data.

Microsoft Azure-based IoT monitoring platform | sponsored by Espressif Systems India Pvt. Ltd. **September 2019**

- Led a team of 5 members to develop a cloud-native application that allows users to onboard and remotely control their IoT devices.
- Produced a prototype to perform a comparative analysis by hosting the application on AWS EC2 vs Azure VM services.
- Streamlined application performance by integrating Azure function app and Azure API Management service, reducing infrastructure costs by 30%.
- Tools/Languages used: ESP32 microcontroller, Mosquitto MQTT broker, Python, Paho MQTT, Azure CosmosDB, Angular 8.

Technical Skills

Programming languages: Python, Java, C++, C, Bash, R, YAML
Databases: PostgreSQL, MongoDB, SQL-based languages, Oracle, EhCache
Cloud Platforms: Microsoft Azure, GCP, AWS, Snowflake
Tools & Platforms: Git, GitLab, AppDynamics, Moogsoft, HashiCorp Vault, ELK(Elasticsearch, Logstash, Kibana) stack, DBT
Frameworks: SpringBoot, Docker, Kubernetes(PKS, AKS), Jupyter, TensorFlow, PyTorch, Flask, Pyspark, OpenCV, Keras, NLTK, SpaCy, Pandas, HuggingFace, scikit-learn
ML and DL techniques: SVM, KNN, K-Means, Regression, Neural Networks, GLoVe, Word2Vec, CNNs, simple RNN, LSTM, GRU, ViT, GPT(LLM), BERT, LegalBERT
Methodologies & APIs: Agile, Scrum, JSON, REST, CI/CD