Anusha Durgam

USA (Open to Relocation)

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EDUCATION

M.S. in Data Intelligence   Aug 2023 – May 2025
University of South Florida, GPA: 3.78/4.0   Tampa, FL
Relevant Coursework: Distributed Systems, Cloud Computing, Data Engineering, MLOps, Machine Learning

TECHNICAL SKILLS

Languages: Python, SQL, Java, Bash
Data Engineering: Spark, Airflow, dbt, ETL/ELT
Cloud Platforms: GCP, AWS, Azure
Databases: PostgreSQL, MySQL, SQL Server
CI/CD: GitHub Actions, Jenkins, MLflow
Visualization: Power BI, Streamlit, Excel
Modeling & Quality: SHAP, Data Validation, Star/Snowflake Schema

EXPERIENCE

Graduate Research Engineer – ML Forecast Pipelines   Aug 2023 – May 2025
University of South Florida   Tampa, FL
- Engineered end-to-end **ANN-LSTM pipelines** using **Airflow**, **BigQuery**, and **Vertex AI** to predict Bitcoin prices across multiple timeframes (2017–2024).
- Built containerized inference microservices in **Flask + Docker**, enabling real-time predictions with <1s latency via REST APIs deployed on GCP.
- Integrated **MLflow** lifecycle automation for experiment tracking, model versioning, performance monitoring, and scheduled retraining.
- Improved model scalability and latency by 45% through dynamic memory provisioning, **CI/CD** deployment via GitHub Actions, and resource-optimized DAG scheduling.
- Used **SHAP** to deliver transparent, explainable outputs to support trust and interpretability in financial forecasting models.

Data Analyst Intern – Engineering Dashboards   Aug 2022 – Aug 2023
Defense Research and Development Organization (DRDO)   Hyderabad, India
- Designed robust ETL pipelines using **Apache Spark, SQL**, and **Bash** scripts to ingest, transform, and load over 2M telemetry and ledger entries/hour.
- Developed signal anomaly classifiers in **PyTorch**, boosting detection accuracy by 35% and reducing operational noise in real-time control systems.
- Delivered fully automated **Power BI** dashboards to monitor financials, procurement, and R&D KPIs, improving team-level visibility and executive reporting.
- Led data warehousing efforts by converting distributed file-based records into a centralized **PostgreSQL** schema with enforced data validation and audit logging.
- Collaborated across DevOps and engineering teams to align technical requirements, standardize schemas, and streamline reporting workflows.

PROJECTS

Crypto Forecasting Platform – Real-Time ML APIs   Feb 2025
Python, BigQuery, Airflow, Flask, Docker
- Built modular pipelines and Flask-based REST API to deliver 1s latency predictions for cryptocurrency prices.
- Used SHAP to create real-time explainability interface and triggered retraining using MLflow/airflow callbacks.

Healthcare Symptom Detection Tool   Nov 2024
Sklearn, Streamlit, Pandas, SHAP
- Trained 94% F1-score classifier on symptom datasets, deployed via Streamlit with patient-level visual drilldowns.
- Used SHAP explainers and interactive dashboards for feature-level trust and diagnosis breakdown.

PUBLICATIONS

"Farm Products Price Prediction using ML", *IJNRD*, 2023. [View Paper]

"Native Language to Sign Language Generator", *IJCRT*, 2023. [View Paper]