NAVISHA SHETTY

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EDUCATION

NORTHEASTERN UNIVERSITY, BOSTON, MA Present
Master of Science in Data Analytics Engineering
Relevant Coursework: Probability and Statistics; MLOps; Data Mining; Computation and Visualization; Database Management

MANIPAL UNIVERSITY JAIPUR, INDIA May 2020
Bachelor of Technology in Information Technology
Relevant Coursework: Data Structures; Data Science; Data Mining and Warehousing; Advanced Machine Learning

HONORS: Awarded JN TATA ENDOWMENT SCHOLARSHIP (2023-24) for Excellence in Academic Performance Aug 2023

SKILLS AND CERTIFICATIONS

PROGRAMMING LANGUAGES AND FRAMEWORKS: Python; PySpark; SQL; C; TensorFlow; PyTorch; PostgreSQL; Spark; OOP concepts;
DEVOPS & MLOPS: Cloud; AWS; Docker; Kubernetes; Terraform; Apache Airflow; Snowflake; Snowpark; MLflow; Git; CI/CD;
AI/ML: Coding Agents; ReAct; SmolAgents; Machine Learning; LangChain; LLMs; Natural Language Processing (NLP); Deep Learning;
CERTIFICATION: Snowflake Snowpro Core Certification [Certificate Link]

EXPERIENCE

LG ENERGY SOLUTION VERTECH, Westborough, MA Jan 2025 - Present
Software Engineer Intern

- Built scalable Snowflake data pipeline using **Snowpark API** in Python to ingest and transform analytics data from APIs and aggregating and filtering Snowflake tables. **Automated** pipeline execution using **AWS Lambda** with scheduled triggers
- Enhanced backend and frontend performance of a FASTAPI + Streamlit-based **Energy Market Optimization tool**, integrating live energy market feeds, managing site-specific configurations via **AWS S3**, and implementing **JWT-based token auth** via cookies
- Applied **predictive analytics** techniques on historical battery usage data to surface patterns in energy discharge cycles

TEKSYSTEMS GLOBAL SERVICES, Bangalore, India Oct 2021 - Aug 2023
Software Engineer

- Provisioned **GPU instances** on AWS EC2 within Kubernetes cluster for accelerated AI/ML project processing
- Designed and managed **Apache Airflow DAG**s to automate and enhance data workflow efficiency for streamlined operations
- Developed **PySpark** scripts for the efficient transition of ML projects to the Spark platform, improving scalability and performance, resulting in a 25% improvement in data processing speeds and a 15% reduction in resource utilization
- Identified and resolved **Docker containerization** issues, optimizing build times by 45 minutes, and enhancing overall efficiency
- Deployed MLFlow on **Kubernetes pods** as a managed service to track over 50 ML models and created AWS **Application Load Balancers** using Terraform to maintain high performance and availability of service

PITNEY BOWES, Pune, India Jan 2020 - Oct 2021
Associate Data Science Engineer

- Implemented **NLP solutions** like Word2Vec, GloVe to automate the tax and shipping calculations for the HS10 Classification project by associating commodity names with their respective HS10 codes, thus eliminating the need for manual intervention.
- Trained ANN and RNN models using **Pytorch**, enhancing parcel weight estimation model accuracy by 25%
- Deployed the Estimated Delivery Date model implementing **CatBoost algorithm**, elevating the performance to 98% F1 score

PROJECTS

BESS Coding Agent - Built an **LLM**-based coding agent using the **ReAct** framework using **SmolAgents** for trader queries and observability related to Day-Ahead energy Market for Battery Energy Storage Systems (BESS), exposing a chat UI and Phoenix dashboard. [Project Link]

News Articles Summarizer using LLMs - Developed a News Articles Summarizer using **LangChain** and LLM endpoints (OpenAI - GPT-4 and Huggingface - T5), streamlining content extraction and summarization. [Project Link]

Ad survey using LLM - Built a **multi-modal** video understanding AI system using the Video **LLaVa model** to predict survey responses from video ads by analyzing visual data, descriptions, and captions. Fine-tuned prompts and evaluated model performance.

PUBLICATION

Machine Learning for Prognosis of Life Expectancy and Diseases, IJITEE Journal | [Paper Link]