

# 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

## EXPERIENCE

### LG ENERGY SOLUTION VERTECH, Westborough, MA

Jan 2025 - Present

#### Software Engineer Intern

- Designed a **coding agent** using the **SmolAgents** framework to handle real time Day-Ahead Market (DAM) energy data queries, integrating **Phoenix tracing** for monitoring, custom **toolchains**, and a **chat UI** for dynamic customer interaction.
- 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 DAGs** 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 SmolAgents framework 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.

## 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; smolagents; Machine Learning; LangChain; LLMs; Agentic AI; Natural Language Processing (NLP); Deep Learning;

**CERTIFICATION:** Snowflake Snowpro Core Certification [\[Certificate Link\]](#)

## PUBLICATION

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