

SHASHANK REDDY MANDA

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Education:

Purdue University, West Lafayette, IN, US.

Jan 2022 to Dec 2023

Master's Degree (MS) in Industrial Engineering, CGPA: 3.78/4

Coursework: Data Mining, Data Engineering, Web Data Analytics, ML, Unstructured Data, NLP, and Big Data & AI.

Skills:

Technical skills: Python, R, SQL, Matlab, NoSQL, GCP, REST APIs, Databricks, Azure, A/B testing, Lean, Six Sigma

Tools: Power BI, Qlik Sense, Tableau, Looker Data Studio, BigQuery, MLflow, MS Office Suite, JIRA

IDEs/Database: Jupyter Notebook, Google Colab, MySQL, PyCharm, Visual Studio Code, MongoDB, RStudio

Professional Experience:

Purdue University, West Lafayette, IN

Aug 2023 to Dec 2023

Graduate Teaching Assistant

- Led and managed a class of **175 students** for the IE 474 Control Systems, ensuring high levels of student satisfaction and engagement while guiding, conducting exams, developing course materials, and maintaining the **LMS** system.

Cook Research Incorporated, West Lafayette, IN

Jan 2023 to Aug 2023

Quality Systems Data Analyst

- Implemented **Lean** methodologies to drive a **50% increase** in system utilization. Utilized **PLM** and **Infor** systems for impact analysis, process development, and optimization, resulting in heightened efficiency, data quality, and compliance.
- Realized a remarkable **90% reduction** in reporting time by employing advanced data analysis techniques within **SAP Business Objects**, leveraging **Agile** methodologies for streamlined data processing within the **ERP** system.
- Facilitated **cross-functional team collaboration** to achieve fully satisfying stakeholder outcomes. Developed dynamic, real-time dashboards in **Qlik**, employing **SQL** for efficient data **ELT** processes, fostering **continuous improvement**.

Wabash National, West Lafayette, IN

May 2022 to Jan 2023

Data Analyst

- Achieved a **28% improvement in trailer utilization** through **data pipelines**. Leveraged **DASK** for parallel computing.
- Conducted broad exploratory data analysis on batched telemetry data from various sensors, leading to actionable insights.
- Engineered a **Python** program to visualize telemetry sensor data, resulting in comprehensive and complex **dashboards**.

Tesla, West Lafayette, IN

Aug 2022 to Dec 2022

Data Scientist Researcher

- Spearheaded Tesla's **NLP** and **ML** initiative utilizing **TensorFlow** and **scikit-learn** for open-text **data classification**.
 - Led development of an ML model, significantly improving **predictive maintenance** by categorizing open-text data. This streamlined grouping of maintenance and downtime events enhanced operational efficiency at Giga Factory, Nevada.
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Project Experience:

ML-Driven Craigslist Classification

Oct 2023 to Dec 2023

- Leveraged **Selenium** for efficient **web scraping** on Craigslist, employed NLP techniques for precise **sentiment analysis**, and attained an **81.50% accuracy** with **XGBoost**, demonstrating advanced analytical and machine learning proficiency.

Crude Oil Price Forecasting

Aug 2023 to Oct 2023

- Developed an **end-to-end pipeline** on **GCP** for crude oil price forecasting, leveraging tools such as **BigQuery**, **Pub/Sub**, **Buckets**, **Dataflow**, **Looker Studio**, and **Cloud Functions**. Integrated batched data for machine learning model training and streaming data for real-time price prediction, ensuring up-to-date insights into crude oil price movements.

Electricity Demand Forecasting

Aug 2022 to Dec 2022

- Applied **Python** and **R** for data analysis on electricity consumption patterns, implementing machine learning algorithms for **clustering** to optimize power distribution strategies and achieve an **84% accuracy** in predicting future use.
- Successfully implemented time-series **soft-dynamic time wrapping**, achieving high accuracy in cluster identification.

Firm Bankruptcy Prediction

Aug 2022 to Oct 2022

- Developed a predictive model to combine various econometric measures and foresee a firm's financial condition.
- Achieved an **ROC** of 0.971 using **Neural Networks**, **Gradient Boosting**, **Decision Trees**, **Random Forests**, and other data transformations and preprocessing techniques in **SAS EM** by taking 64 attributes to predict and classify as default.

Database Integration and Management with Python

May 2021 to Aug 2021

- Executed database queries on a large dataset, optimizing performance and achieving a **95% accuracy** rate in data retrieval demonstrating expertise in data management, **SQL**, **database optimization**, and visualizing real-world data.