TEJASWINI PARLAPALLI

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PROFESSIONAL EXPERIENCE

Rivian Automotive, Irvine,CA – ***Data Scientist*** ***Apr 2023 - Present***

- Implemented predictive machine learning models (Linear regression, Random Forest, Gradient Boosting) to address part shortages, achieving a 5% reduction in line side downtime and enhancing overall supply chain efficiency by 12%.
- Optimized demand forecasting solutions by applying predictive analytics (SVM, Bayesian methods, Linear Regression), resulting in a noteworthy 15% improvement, effectively minimizing stockouts and reducing excess inventory.
- Executed a data-driven approach incorporating diverse algorithms (XGBoost, Light), yielding a 20% increase in accuracy, and enhancing demand management strategies by ensuring precise on hand unit predictions.
- Streamlined SAP & MES systems data integration in AWS Redshift, Snowflake & Databricks SQL queries, while spearheading Power BI visualization for executive-level insights.
- Created Alteryx pipelines for vital supply chain data, leveraging process mining analytics to cut production bottlenecks by 20%.
- Developed an innovative inventory management solution using Reinforcement Learning and Q-Learning to automate the operating plan, significantly enhancing capacity planning, and earned leadership recognition for this, with an Innovation Award.

Indiana University Marketing Analytics, Indianapolis, IN - ***Data Scientist*** ***Aug 2022 - May 2023***

- Devised and executed advanced Alteryx ETL model automations that markedly elevated API connector performance enhanced. This innovation expedited data processing, ensuring swift integration into Big Query, and saving of 10 man-hours per week.
- Optimized data analysis & pipeline development strategies within marketing funnels by refining data extraction using Big Data tools Hive, spark from multiple sources including DB, APIs, and flat files, resulting in a 15% reduction in data maintenance costs.
- Designed/ implemented Google Analytics4 processes to track user behavior, improve marketing effectiveness, and measure ROI. Translated these insights into Looker Studio visuals enabling decision-making, resulting in an overall 2% website conversions.

Indiana University, Indianapolis, IN – ***Research Assistant*** ***Aug 2021 - Apr 2022***

- Spearheaded research Implementation of ML and DL classification and neural network models to detect age of real-world images with 78.3% precision and Applied FastText NLP algorithms for precise failure mode predictions, improving quality metrics by 53%.
- Employed Natural Language Processing (NLP) techniques for feature engineering by extracting insights from text data linked to images. This included the application of sentiment analysis and entity recognition, augmenting models with additional features

EMC Insurance Group, Des Moines, IA - ***Data scientist*** ***Jun 2022 - Aug 2022***.

- Achieved a 60.1% damage prediction rate by implementing regression models (Random Forest, Gradient Boost, XGBoost), feature engineering, optimizing hyperparameters, cross-validation, regularization methods on AWS and Snowflake data.
- Leveraged extensive research and deep analysis of large datasets to identify critical trends, developed advanced ML models, and integrated BERT, resulting in a remarkable 10% enhancement in the accuracy of insurance analysis.
- Developed interactive dashboards and visualizations using Power BI, resulting in increased stakeholder understanding of insights obtained from projects, successfully identifying and rectifying faulty investments totaling $260k

Deloitte - Business Intelligence Analyst ***Dec 2019 – Jul 2021***

- Played an integral role in developing Oracle Cloud RDBMS framework, data analysis procedures, leading to a successful migration to Oracle Cloud. Utilized MySQL, Python, Bash scripts to optimize data processes, reducing migration time by 3%.
- Effectively managed multiple client requests and priorities in a high-pressure environment, ensuring sound decision-making. Trained and mentored three new hires providing continuous guidance and constructive feedback.
- Conducted data trend analysis using statistical methods like T-tests, ANOVA, and Correlation analysis with over 85% accuracy to provide insights for strategic decision-making. Awarded Spot Award for best performance during my first tenure.

Amazon. – *Data scientist* ***Aug 2019 - Dec 2019***

- Developed and maintained Time series analysis for financial forecasting vendor business performance, and analyze potential scenarios using Clustering, resampling, and classification models, resulting in increased product purchases by 12%.
- Implemented machine learning algorithms (KNN, decision trees, XGBoost) to enhance fraud detection accuracy by 20%, leading to substantial cost savings of 20,000 dollars.

EDUCATION

Indiana University Purdue University Indianapolis, IN - **MS in Applied Data Science** (GPA 3.79/4.0)
Jawaharlal Nehru Technological University, - BS in Electrical & Electronics Engineering (GPA 4.0/4.0)

ACADEMIC PROJECTS

Analysis of Airline Passenger satisfaction

Developed statistical analysis techniques, utilizing forward and backward stepwise selection, cross-validation principles, along with linear and quadratic discrimination and SVM algorithms, resulting in a satisfaction prediction model with a 79.3% accuracy.

Zonal Accident Risk Prediction system

Successfully developed and deployed multiple machine learning models including linear, Cat boost and LGBM regression, random forest classifier, using Spark MLlib and collab. Achieved accuracy rate of 74% on a dataset of 7K road accidents in 8K postal codes.

Age Gender detection system from pixel data using CNN and RNN deep learning techniques.

Developed deep learning models achieving 78% accuracy in real-world image-based age and gender detection by extracting features through multiple model comparisons and deep neural network training.

SKILLS

Certifications:	Google Analytics certification by Google, databricks certified Data Engineer professional
Languages & Tools:	Python, SQL, R, PHP, D3.js, C, CSS3, AWS (S3, Redshift, Lambda), Tableau, Git, Anaconda, C, Power BI, Google Analytics, Adobe Analytics, Power BI, Tableau, Looker Studio, Datorama, GCP, Google Big Query, Snowflake, Linux, shell, ETL, Git, Docker, Kubernetes, Agile, Alteryx, Kafka, Spark, ER/Studio, Talend.io
DB's & Libraries:	MySQL, NoSQL, Oracle SQL Developer, MongoDB, MapReduce, Sqoop, Hive, Spark, NumPy, Pandas.