**Deepak Naidu Sarika**

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**EDUCATION**

**Stony Brook University Stony Brook, New York**

*Master of Science in Data Science Expected May 2026*

**Relevant Coursework**: Probability, Data Analysis, Statistical Computing, Data ManagementGPA: 3.5+

**Parul University Vadodara, India**

*Bachelor of Technology in Computer Science & Engineering - Artificial Intelligence May 2024*

**Relevant Coursework**: Data Visualization, Machine Learning, Deep Learning, Natural Language Processing, Pattern Recognition GPA:3.5

**TECHNICAL SKILLS**

**Languages & Tools:** Python (Pandas, NumPy, SciPy, scikit-learn, TensorFlow, PyTorch), R, SQL, Excel,JIRA

**Machine Learning:** Supervised & Unsupervised Learning, Predictive Modeling, Data Preprocessing, SARIMA, XGBoost, Logistic Regression

**Data Visualization:** Power BI, Tableau, Matplotlib, Plotly

**Cloud Computing:** Microsoft Azure (Databricks, Data Lake, Data Warehouse), Git, GitHub, Apache Airflow, BigQuery, NoSql

**Data Manipulation:** SQL Server, MySQL, PostgreSQL, Apache Spark, ETL (Extract, Transform, Load)

**PROFESSIONAL EXPERIENCE**

**DigiFrills Vijayawada, India**

*Founding Team & Data Science Team Lead July 2023 – July 2024*

* Collaborated with **cross-functional teams** to identify and solve key business challenges, including customer segmentation analysis, which improved marketing conversion rates by 15%.
* Built and **optimized Power BI dashboards**, cutting report generation time by 30%, enabling real-time decision-making through clear, actionable insights.
* Performed **Exploratory Data Analysis (EDA)** to identify trends, which refined targeted marketing strategies and increased customer engagement by 12%.

**Brainy Beam Technologies Vadodara, India**

*Data Science and Machine Learning Intern July 2023 – September 2023*

* **Pre-processed and cleaned large datasets (200,000+ records)**, improving data accuracy by 90%, which amplified the reliability of subsequent predictive modeling.
* Conducted **data analysis and model experimentation**, refining the prediction model through iterations with **XGBoost** and **Random Forest**, boosting overall performance.

**Indian Railways - South Central Railways Secunderabad, India**

*Software Developer November 2022 – July 2023*

* Enhanced **MySQL query performance by 25%**, speeding up data extraction processes and enabling more efficient data analysis for operational decision-making.
* Designed **real-time data dashboards with Matplotlib and Plotly**, enhancing resource allocation across multiple projects and boosting completion rates by 12%.
* Leveraged real-time data to optimize project workflows, **cutting task completion time by 10%** and ensuring on time project completion by reducing bottlenecks in resource allocation.

**PROJECTS**

**Strategic Startup Analysis for High-Growth Investment Opportunities August 2024**

* **Applied K-Means clustering** to segment **10,000 startups** into growth clusters, improving investment strategy accuracy by 85%.
* Built predictive models with **Logistic Regression** and **Random Forest** using, achieving 85% accuracy in forecasting startup success based on growth metrics like funding and employee count.

**Energy Demand Forecasting and Optimization Using Machine Learning and Time Series Analysis****June 2024**

* Developed and fine-tuned **SARIMA models** using **scikit-learn** to predict energy demand with 90% accuracy.
* Integrated **XGBoost** to enhance the forecasting model’s precision, resulting in a **30% optimization** of renewable energy allocation during peak demand.
* Used **TensorFlow** to experiment with deep learning models, improving grid stability by 20% during high-demand seasons through better energy distribution strategies.

**Event-Driven Foot Traffic Optimization for Retailers May 2024**

* Increased foot traffic prediction accuracy by 18% using **Gradient Boosting**, integrating weather, event, and holiday data.
* Led geospatial and time-series analysis, leveraging weather and event data to predict foot traffic and improve business performance by 7%.
* Analyzed over **50,000 data points**, creating real-time visual dashboards using **Matplotlib** and **Plotly** to support decision-making.

**Social Distancing Detection System | Intel – Summer Trainee May 2023**

* Achieved 92% accuracy in a real-time social distancing detection model using **computer vision** (CV) and **deep learning** (DL), implemented with **YOLO** for object detection and distance measurement.
* Reduced **false positives** **by 18%** through advanced data preprocessing, improving real-time detection reliability.