**Pavan Sai Prasanth Sabnaveesu**

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**Professional Summary**

Experienced Data Scientist with 5+ years of expertise in SQL, Tableau, and machine learning to drive data-driven business insights. Proven track record in data mining, predictive modeling, and data pipeline development. Collaborates effectively with cross-functional teams to deliver innovative and data-driven solutions. Passionate about data-driven decision-making and committed to delivering innovative solutions that deliver significant impact

**Education**

*Texas A&M University, Master of Science, Computer Science* ***CGPA: 3.83/4.0***

**Technical Skills**

Programming& Databases : Python, SQL, R, PostgreSQL, DSA, REST API, Fast API, Flask

Data Visualization &DevOps : Table au , Matplotlib, Seaborn, Plotly, Power BI, ETL Pipelines

Machine learning : NumPy, Pandas, Scikit-learn, TensorFlow, Keras, PyTorch, OpenCV,

Regression, XGBoost, Random Forest, LSTM, CNN ,GRU

**Work Experience**

***Graduate Assistant, Texas A&M University***  ***Feb 2023 – Dec 2024***

* Researched wind turbine blade detection and segmentation using Mask R-CNN, YOLOv7, and YOLOv8, achieving 98.7% mAP and reducing training time by 25%
* Optimized LLM performance by 20% using Parameter-Efficient Fine-Tuning techniques (LoRA, QLoRA)
* Designed a RAG model with Hugging Face Transformers using Pinecone DB , boosting document search accuracy by 35% and driving a 15% revenue increase through seamless knowledge base integration
* Developed a conversational AI system using LangChain and RAG on AWS, enabling dynamic and accurate responses to user queries across financial and medical domains •
* Constructed speech-to-text systems using MFCCs and GRU/LSTM models and text-to-speech systems with Tacotron 2 and WaveNet, achieving 85% accuracy Optimized pipelines for significant gains in performance and latency
* Researched and implemented state-of-the-art complex neural network architectures and algorithms

***Senior Data Scientist, NEXT ROW Private Limited July 2021 – Dec 2022***

* Managed large datasets using Big Query and Python for customer segmentation, resulting in a 20% increase in customer acquisition and an 8% improvement in engagement
* Streamlined ETL workflows in SQL, slicing manual reporting time by 70% and boosting efficiency and productivity
* Forecasted retail sales using ARIMA-based models, optimizing inventory management by accounting for seasonal trends and enhancing stock level accuracy
* Spearheaded anomaly detection process using Python (Isolation Forest, DBSCAN) to identify outliers in large datasets, improving data reliability and decision-making accuracy
* Conducted A/B testing for subscription churn prediction, with XGBoost achieving 15% higher accuracy, reducing churn by 20%, and boosting retention ROI by 10%
* Conducted t-tests to evaluate the impact of marketing campaigns on sales performance. Identified significant factors, leading to targeted strategies that increased customer engagement by 20%

***Data Scientist, Meslova Systems Private Limited Sept 2018 - June 2021***

* Orchestrated comprehensive ETL pipelines to preprocess and normalize datasets, facilitating targeted feature engineering for customer behavior prediction
* Translated Chinese to English using NLTK and wubi, cleansing and tokenizing sentences for input Employed GRU based encoder-decoder architecture for accurate language translation
* Automated data extraction and transformation workflows using SQL, resulting in 50% reduction in manual reporting time through real-time Tableau dashboard updates
* Restructured CI/CD processes with Jenkins and Docker, raising model accuracy by 20% and ensuring seamless deployment with Kubernetes for scalable ML applications
* Redesigned database schemas into BCNF to streamline customer order management, reducing redundancy and ensuring data integrity, which improved query performance by 30% and enabled accurate real-time inventory tracking
* Designed interactive Tableau dashboards to visualize purchasing trends, revenue insights, and marketing expenditures, enabling strategic decision-making