






Pavan Sabnaveesu

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Professional Summary

Dynamic Data Scientist with over 5 years of experience with deep expertise in SQL, Tableau, and machine learning, transforming raw data into actionable insights that drive business growth and competitive advantage. Skilled at developing robust data pipelines and predictive models, I collaborate across teams to deliver innovative, data-driven solutions that enhance operational efficiency and fuel strategic decision-making.

Technical Skills

 **Programming & Databases:** Python, SQL, Big Query, R, PostgreSQL, DSA, REST API, Fast API, Flask
 **Data Visualization & DevOps:** Tableau, Matplotlib, Seaborn, Plotly, Power BI, ETL Pipelines, AWS, GCP, Azure
 **Machine Learning & NLP:** NumPy, Pandas, Scikit-learn, TensorFlow, Keras, PyTorch, OpenCV, spaCy, NLTK
 **DevOps & LLMs:** Docker, Kubernetes, CI/CD (Jenkins), Git, OpenAI-GPT, Hugging Face, BERT, RAG
 **ML algorithms:** Regression, XGBoost, Random Forest, LSTM, CNN, GRU, Transformer, YOLO, LLaMA

Work Experience

Lead Data Scientist, Cyber Nirvana (Contract)

February 2025 – Present

- Developed a conversational AI system using LangChain, RAG, and OpenAI GPT, integrating multimodal LLM with model context protocol for real-time financial query processing, achieving 95.3% response accuracy
- Optimized customer support chatbot by 24% using LoRA and QLoRA under PEFT, fine-tuning attention heads and activations while quantizing model layers to reduce latency and GPU memory by 42%
- Developed Azure AI agents for real-time patient triage, integrating quantization with BERT models on Azure ML, improving diagnosis by 28% and cutting time by 25% for a telehealth platform serving 8,000 daily users

Data Scientist, NEXT ROW Private Limited

July 2021 – Dec 2022

- Managed large datasets using Big Query and Python to process data and segment potential customer groups, resulting in a 20% increase in acquisition and an 8% improvement in engagement
- Adept at interpreting complex datasets and weaving compelling narratives to present insights to stakeholders, transforming technical findings into powerful business strategies that reveal meaningful patterns and drive data-informed decision-making and strategic planning
- Developed a recommendation engine using collaborative filtering engine with AWS Neptune and GraphSAGE, processing millions of e-commerce interactions to increase user engagement by 20%
- Developed ARIMA and quantized LSTM models using PySpark and Kafka on transaction streams, capturing seasonality and market trends. Achieved 20.3% improvement in forecasting accuracy, optimizing retail banking risk

Software Developer – AI, Meslova Systems Private Limited

Sept 2018 - June 2021

- Conducted A/B testing and 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%
- Restructured CI/CD processes with Jenkins and Docker, raising model accuracy by 20% and ensuring seamless deployment with Kubernetes for scalable ML applications
- Fine-Tuned likelihood-to-lapse using grid search, cross-validation, GB models tuning, achieving 88.7% accuracy, 15% higher precision, reduced 20% churn reduction, and 10% retention ROI increase
- Enhanced ETL pipelines with SQL to preprocess and normalize data, incorporating advanced feature engineering and regression models, improving customer behavior prediction accuracy by 25% and loyalty assessment by 15%

Education

Texas A&M University
Master of Science
Graduate Research Assistant

CGPA: 3.9/4.0
January 2023 – Dec 2024
February 2023 – Dec 2024

Projects

- Developed real-time object and lane detection for self-driving cars, increasing lane accuracy by 21% using U-Net and improved traffic sign and pedestrian tracking with YOLOv8 and ByteTrack
- 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 using Vertex AI