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Vishwanath Guruvayur
Data Scientist

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EDUCATION

University of Virginia (UVA) Charlottesville, VA
Master of Science in Data Science Jun 2024 – May 2025

Capstone Project (sponsored by LMI Inc.): *Implementing Multimodal RAG based LLM for Education*
Research on methods to leverage Lecture PDFs, Slides & Videos in LLMs to develop an enhanced, context-rich learning experience.
Coursework: *Statistical Machine Learning • Linear Models • Bayesian Machine Learning • Large-Language Models • Deep Learning • Big Data Systems • Applied Data Engineering • Data Mining • Ethics in Data • Data Structures & Algo • Time Series Analysis*

Birla Institute of Technology & Science, Pilani (BITS Pilani) Hyderabad, India
Bachelor of Engineering in Mechanical Engineering, Minor in Data Science Aug 2018 – Dec 2021

SKILLS

Programming Languages: Python (NumPy, Pandas, Scikit-learn), R, SQL, JavaScript, C++, MATLAB
AI & ML: Predictive ML, Deep Learning (PyTorch, TensorFlow, Keras), LLMs (LangChain), OpenCV, NLP
Cloud & Data Tools: Azure (DataBricks, Data Factory, ML Studio), AWS (SageMaker, EC2, S3) , Git, Docker, PySpark
Visualization: Power BI, Plotly Dash, Advanced Excel (VBA, Power Query), d3.js

PROFESSIONAL EXPERIENCE

Piramal Critical Care (PCC) Bethlehem, PA (Remote, India)
Data Science Lead Jan 2022 – Jun 2024

- Established and led the Data Science & Analytics Team, developing end-to-end data products across Supply Chain, Finance, and Sales to enable data-driven decision making and operational growth.
- Engineered automated **Data and ML pipelines** using Python & SQL, powering **over 30** action-oriented analytics dashboards across divisions, reducing manual reporting by **85%** with real-time validation alerts.
- Introduced **Predictive Modeling** for actionable insights for market share and inventory optimization resulting in a **40%** improvement in supply chain efficiency and **$1.2M** quarterly savings from reduced write-offs.

  Key Projects include:
  - **Inventory Management Analytics & Forecasting** *Machine Learning | Supply Chain & Finance*
    Implemented a time-series forecasting pipeline using **S-ARIMA** for SKU-level inventory prediction and **Monte Carlo simulations** for scenario planning, reducing monthly write-offs through optimized aging stock management.
  - **Product Sales Market Share & Growth Analytics** *Statistical Modeling | Finance & Sales*
    Engineered a market analytics framework using **segmentation analysis** and **competitive benchmarking** to evaluate market dynamics and identify growth opportunities, guiding long-term business strategies.
  - **Sentiment Analysis Modelling of Employee's Feedback** *Natural Language Processing | HR*
    Built an ensemble sentiment analysis pipeline combining **VADER and TextBlob** to analyze employee feedback, extracting key insights to inform personalized development plans and improve employee satisfaction.

Piramal - Consumer Product Division (CPD) Mumbai, India
Data Science Intern Jul 2021 – Dec 2021

- Collaborated with cross-functional teams to develop analytical solutions for sales optimization and employee retention.

  Key Projects:
  - **Product Recommendation Engine** *Unsupervised Learning | Sales Operations*
    Developed company's first recommendation engine using FP-Growth algorithm to optimize product placement, enhancing market penetration by **15%** quarterly and impacting over **400k retailers** across India.
  - **Attrition Prediction Modelling** *Machine Learning | Sales and HR*
    Developed a model ensemble of **XGBoost and Logistic Regression** to predict attrition among sales employees, achieving a **93% retention rate** for high-performing employees by leveraging performance metrics and key operational features.

CERTIFICATIONS

- AWS Certified Solutions Architect – Associate Amazon Web Services (scheduled Jan 2025)
- AWS Certified Machine Learning – Associate Amazon Web Services (scheduled Feb 2025)