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# Vishwanath Guruvayur

Data Scientist

github.com/vishugp linkedin.com/in/vishgp Website: vishugp.github.io

#### EDUCATION

# University of Virginia

Master of Science in Data Science

Charlottesville, VA Jun 2024 – May 2025

Capstone Project (sponsored by LMI Inc.): Implementing Multimodal RAG based LLM for Education

Research on methods in including multimodal data to develop an Agentic AI-enhanced, context-rich learning experience.

Coursework: Statistical Machine Learning • Large Language Models • Deep Learning • Big Data Systems • Bayesian Machine Learning • Applied Data Engineering • Text Analytics • Data Ethics • Data Structures and Algorithms • Linear Models

Activities: Data Science Ambassador • TA - Statistical Machine Learning • Academic Village Resident (The Range)

## Birla Institute of Technology and Science (BITS Pilani)

Bachelor of Engineering in Mechanical Engineering, Minor in Data Science

Hyderabad, India Aug 2018 – Dec 2021

#### Professional Experience

#### Data Science Lead

Piramal Critical Care (PCC)

Bethlehem, PA (Remote, India)

Jan 2022 - Jun 2024

- Established and led the Data Science and 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 and SQL, powering **over 30** action-oriented analytics reports across business teams, reducing manual reporting effort by 85% with real-time validation alerts.
- Introduced **Predictive Modeling** and promoting data-driven actionable insights for market share growth and financial inventory management resulting in 40% improvement in supply chain efficiency and \$1.2M quarterly savings.

## Project Highlights:

- Inventory Forecasting: Implemented a time-series forecasting pipeline for SKU-level inventory forecasting using S-ARIMA and Monte Carlo methods, reducing monthly write-offs through optimized aging stock management.
- Market Share and Growth Analytics: Engineered an analytics dashboard using segmentation analysis and competitive benchmarking to evaluate market dynamics and identify growth opportunities, guiding long-term business strategies.
- Individual Development Plans: Built a NLP sentiment analysis workflow using VADER and TextBlob to analyze employee feedback, extracting key insights to inform personalized development plans and improve employee performance.

## Data Science Intern

Mumbai, India

Piramal Consumer Healthcare (PCH)

Jul 2021 - Dec 2021

- Worked with cross-functional teams to develop analytical solutions for sales optimization and employee retention.
- Recognized for exceptional performance, leading to an offer for the Data Science Lead role at Piramal Critical Care.

#### Project Highlights:

- Product Recommendation Engine: Developed company's first recommendation engine from scratch using FP-Growth algorithm to optimize product placement, enhancing market penetration by 15% quarterly across 400k retailers.
- Attrition Prediction Modelling: Developed an ensemble of XGBoost and Logistic Regression to predict salesmen attrition by leveraging performance metrics and key operational features, achieving a 93% critical retention rate.

## SKILLS

Programming Languages: Python, R. SQL, JavaScript, C++, MATLAB, Scala, Julia

AI and ML: Traditional ML, NLP, Deep Learning (PyTorch, TensorFlow), LLMs (LangChain, HuggingFace), OpenCV Cloud Data Tools: Azure (DataBricks, Data Factory, ML Studio), AWS (SageMaker, Dask, EC2), Git, Docker, PySpark Data Visualization: Power BI, Plotly Dash, MS Excel (VBA, Power Query), d3.js

### CERTIFICATIONS

- AWS Certified Solutions Architect Associate
- AWS Certified Machine Learning Associate

Amazon Web Services (expected Mar 2025)

Amazon Web Services (expected Apr 2025)