Gainesville, VA +1 (571) 602-2034 vishguru2704@gmail.com

Vishwanath (Vish) Guruvayur

Data Scientist

vishguru.com github.com/vishugp linkedin.com/in/vishgp

SUMMARY

Data Scientist with over 3 years of hands-on experience delivering 30+ data products across finance, operations and supply chain in healthcare and edtech. Skilled in Python, SQL, and AWS, with expertise in statistical predictive modeling and GenAI. Passionate about applied ML and making analytics actionable, interpretable, and aligned with real-world decision-making.

EXPERIENCE

AI Researcher

Charlottesville, VA (Remote)

LMI Inc. and UVA School of Data Science

Nov 2024 - Present

- Applied research on multimodal and hybrid Retrieval-Augmented Generation (RAG) systems, exploring their impact on educational content retrieval, summarization quality, and learner comprehension.
- Engineered a modular multimodal RAG evaluation pipeline using Sentence Transformers, CLIP, and Pinecone, enabling content retrieval and rapid experimentation across diverse embedding backends for research.
- Co-authored a peer-reviewed paper, "Using Digital Textbook and Classroom Data to Explore Multimodal (Audio, Visual, & Textual) LLM Retrieval Techniques" [PDF], accepted at AIED 2025 (iTextbooks Workshop).
- Recipient of the "Most Compelling Data Visualizations" award at the Capstone Showcase for innovative and interpretable visual representations that advanced insight into multimodal RAG models.

Lead Data Scientist

Bethlehem, PA (Remote)

Jan 2022 – Jun 2024

Piramal Pharma Ltd.

- Established and led the Data Science Team for the Critical Care Division, building a high-performing team of data scientists in integrating advanced analytics and AI products with best practices into core business functions.
- Prevented \$1.2M in quarterly losses by implementing causal inference via counterfactual analysis of inventory schedules, write-offs and sales forecasting using Monte Carlo simulations and S-ARIMA, optimizing depleting stock visibility.
- Partnered directly with the CFO to design interactive market story dashboards combining segmentation analysis and competitive intelligence, shaping global portfolio expansion strategies across five regions.
- Designed unified monitoring workflows in Python to track both business KPIs and ML model health (data drift, prediction quality), enabling early retraining and aligning model performance with business goals and strategies.
- Received the "Piramal Excellence Award" for engineering **over 30 end-to-end analytics pipelines** using Python and SQL on Azure, optimizing reporting frequency by weeks and increasing operational efficiency by 85%.

Data Science InternPiramal Pharma Ltd.

Mumbai, India

Jul 2021 – Dec 2021

- Achieved 15% quarterly increase in market penetration across 400,000 retailers by building the company's first product recommendation engine using the Tree-based FP-Growth algorithm from scratch.
- Boosted high-performing sales reps **retention rates to 93**% by developing an attrition prediction model using XGBoost and Logistic Regression on historic sales performance and attrition data.

EDUCATION

University of Virginia

Charlottesville, VA

Master of Science in Data Science, GPA: 4.0/4.0

Jun 2024 – May 2025

Data Science Ambassador • Teaching Assistant - Statistical Learning • Academic Village Resident (The Range)

AWS Certifications: *Solutions Architect – Associate, Machine Learning – Specialty*

Birla Institute of Technology and Science (BITS Pilani)

Hyderabad, India

Bachelor of Engineering in Mechanical Engineering, Minor in Data Science, GPA: 3.8/4.0

Aug 2018 – Dec 2021

SKILLS

Languages: Python, R, SQL, Scala, JavaScript, Bash

Tools: Jupyter, Flask, Docker, Git, Conda, Linux

Visualization: Power BI, Plotly Dash, Matplotlib, Seaborn, Excel

AI and ML: Stat Modeling (Scikit-Learn, XGBoost), Deep Learning (PyTorch, TF), LLMs (LangChain), NLP (NLTK, SpaCy)

Cloud and Big Data: AWS Certified, Azure Databricks, Spark, Snowflake, Hadoop, MLFlow

Hobbies: Singing and Music Analysis (Spotify Artist Map, Classical Raga Viz), Card Games, Chess, Badminton