Vidyasagar Bhargava

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Github

Linkedin

Website

Experience

TVS Motor Nov 2021 – Present

Lead Data Scientist

Bengaluru, Karnataka

- Developed a Multi-Agent Vehicle Diagnostic chatbot using **LangGraph** to provide intelligent diagnostics by analyzing telematics data and proactively assisting technicians with troubleshooting and maintenance recommendations.
- Reduced diagnostic time at service centers by 90% for low-range issues in EV by deploying a **Light GBM model** based web app on azure using streamlit, fastapi and docker. Utilized **SHAP** values to pinpoint underlying issues during trips.
- Collaborated closely with cross-functional teams, including R&D, Service and Data Engineering, to build machine learning solutions for problems like **Time to charge** the vehicle, **Cell Imbalance** issue and **Distance to Empty**

 $egin{array}{ll} ext{Wipro} & ext{Oct } 2017 - ext{Nov } 2021 \end{array}$

 $Specialist\text{-}Data\ Science$

Bengaluru, Karnataka

- Developed a Random Forest classifier and applied explainable AI techniques, including partial dependence plots, to intervene in customer support operations for consumer electronic client, resulting in increased Net Promoter Score.
- Cleaned and wrangled freight data and predicted freight cost of different carriers using XGBoost model.
- Optimized and benchmarked sentence embedding models like **Infersent** and **Skip-Thought Vectors** on the latest Xeon processors using distributed frameworks like distributed TensorFlow and horovod library.

Associate-Data Science

Gurugram, Haryana

- Segmented stores using **K-Means clustering** to help the client fine-tune their go-to-market strategy, leading to a 15% increase in market penetration and a \$1.7 million increase in turnover in Mumbai.
- Led a team of data scientists to develop and implement **Logistic Regression** based solution, to identify potential churners ahead of month for each service line, leading to 12% reduction in customer churn for a telecom client.

Snapdeal Sep 2014 – Jul 2016

Analyst-Advanced Analytics

Gurugram, Haryana

- Built a price optimization engine for scientific pricing of products using **Multiple Regression** algorithm and **Non-linear optimization** which led to substantial business revenue growth and improving profitability by 3.5x.
- Developed an analytical process of product and seller selection in campaigns using complex SQL queries.

Ladyblush Jan 2014 – Sep 2014

Engineer

Gurugram, Haryana

- Leveraged Association Rule Mining to enhance cross-selling, boosting AOV and increasing revenue by 10%.
- Utilized SQL, Excel, and R for analysis and communicate actionable insights and recommendations to key stakeholders.

Shopclues $\operatorname{Mar} 2013 - \operatorname{Dec} 2013$

Analyst

Guruqram, Haryana

- Utilized advanced Excel functions and VBA macros for in-depth data analysis and automated reporting, reducing manual tasks by 3 hours daily and significantly enhancing workflow efficiency.
- Created dashboards, data pipelines and recurring reports to support business and product decision-making.

Education

Dr. APJ Abdul Kalam Technical University

Aug 2007 - May 2011

Bachelor of Technology in Computer Science

Technical Skills

Programming & Tools: Python, SQL, R, PyTorch, Mlflow, PySpark, Azure, Databricks, Fast API, Hugging Face Machine Learning: Linear & Logistic Regression, Decision Tree, Random Forest, XGBoost, Light GBM, K-Means, PCA NLP & Deep Learning: Tokenization, POS Tagging, Topic Modeling, Sentiment Analysis, RNN, LSTM, TF-IDF, Bag of Words, Word2Vec Embeddings, Auto-Encoders, Attention Mechanism, Transformers, RAG and Fine tuning LLMs Generative AI: LangChain, LangGraph, LlamaIndex, Azure-OpenAI, Multi-Agent System & Chatbot

Awards & Honors

Performer Award: For developing a ML based proactive approach in identifying vehicles prone to thermal incident by creating multiple alerts on daily basis leveraging telematics data at TVS Motor

Thinking Hat Award: Developed innovative solution using XAI to improve NPS for US based client at Wipro. Bull's Eye Award: For building Price optimization engine which led to 3.5 times better profitability at Snapdeal. Rank 3rd in Hackathon: Achieved 3rd place out of 2000+ participants in Fractal Time Series Forecasting Hackathon.