

RAJESH GIRI

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PROFESSIONAL EXPERIENCE

Senior Data Scientist – Generative AI

Feb'24 - Present

Fractal Analytics

Redwood City, California

- Collaborated with Product Managers and Engineers to enhance the features of existing Generative AI capabilities while also ideating new features. These efforts led to a **30% increase in the application's customer adoption** over a 6-month period
- Developed an agent for question answering over structured databases on natural language queries, enabling intricate mathematical and logical operations. The agent is being utilized by **15+ customer pilot teams**
- Led a successful customer pilot by developing a **multi-modal RAG-based** solution to **automate metadata tagging** and enhance user searchability and interaction for **3000 videos**
- Deployed a comprehensive set of **guardrails** to detect and prevent hateful/harmful content, prompt injection, and leakage of sensitive information (PII) in generative models, achieving an **F1 score of over 90%**

Data Scientist

May'22 – Dec'23

Tiger Analytics

Cincinnati, Ohio

- Implemented a **Probability of Default** model deploying **Logistic Regression** and **ARIMAX** forecasting. Attained over 90% recall in predicting charge-off probabilities for credit card users, enhancing loss forecasting
- Spearheaded the building and deployment of a **Flask** application to **automate validation of PDF letters** for student loans business, working closely with business stakeholders. This initiative boosted accuracy by over **25%**
- Designed an end-to-end **PyTorch Natural Language Processing** pipeline for **text classification** to finetune **Hugging Face Transformer models**, reducing turnaround time by **~90%**
- Performed lifecycle analysis on credit card customer segments. Closely partnered with the marketing team to design **A/B testing** experiments focused on value propositions, driving a projected **~18% surge in customer spending**

Deputy Manager – Data Science

Nov'18 – Aug'21

Aditya Birla Capital

Mumbai, India

- Innovated a chat-based **NLP lead generation engine** to predict conversion likelihood by classifying intents and identifying keywords from daily customer chats. This led to a **3x** increase in daily leads and **6x** increase in new business
- Engineered a robust **churn prediction model** in **AWS SageMaker**, which identified key risk factors affecting customer retention; this initiative resulted in a **40% increase in customer retention**.
- **Boosted user conversion rate by ~12%** by analyzing customer funnel for retail customers, identifying drop-off points to optimize user journey
- Orchestrated **A/B testing** experiments to elevate web traffic performance, leading to **12% lift** in key KPIs and **\$11 Mn increase in annual SIP sales**
- Established monthly cadence of **mutual fund industry analysis** in **Power BI** to track competition funds, walking top management through key insights to facilitate strategic decision making

Risk Analyst

Jun'16 – Nov'18

Edelweiss Financial Services

Mumbai, India

- Devised a robust **credit scoring model** based on **LGBM Classifier** to forecast credit defaults for unsecured lending business, potentially increasing profits by **~40%**
- Engineered a **Stress Testing Tool** in **Python** employing **Monte Carlo Simulation** to gauge portfolio risk during extreme market scenarios, resulting in **~70% time savings** for devising informed risk mitigation strategies
- Analyzed portfolio risk metrics, automated risk reporting process using **Python**, reduced turnaround time by **~40%**
- Crafted weekly reports in **Tableau** capturing vital risk KPIs contributing to **reduction in risk breaches by ~20%**

SKILLS

- **Machine Learning:** Regression, Classification, Forecasting, NLP, Deep Learning, Generative AI, A/B testing
- **Tools and Programming:** Python, C++, SQL, Spark-SQL, Tableau, Power BI, MS Excel, VBA Macros, Flask, Git
- **Libraries and Packages:** Pandas, NumPy, PySpark, Scikit-learn, Seaborn, Matplotlib, Langchain, PyTorch, Spacy, NLTK
- **Cloud Environments:** AWS, Snowflake, Dataiku, Google Data Studio, Databricks

EDUCATION

University of Cincinnati, Carl H. Lindner College of Business

Master of Science, Business Analytics (STEM) | Aug'21- Aug'22 | Cincinnati, Ohio

Pune University

Bachelor in Electronics & Telecommunications Engineering | Jul'12 - Jun'16 | Pune, India