

EDUCATION

- **BTech Electrical Engineering**, Malviya National Institute of Technology, Jaipur 2025.

EXPERIENCE

ICICI Bank (July 2025 – Present) | Data Engineer, Mumbai

- Worked with **IBM InfoSphere DataStage and Designer** to schedule and monitor automated ETL jobs, ensuring reliable batch processing and timely data availability across enterprise systems.
- Built and enhanced **Azure ETL pipelines** using **Azure Data Factory and Azure Databricks** to ingest and transform source-system data, delivering analytics-ready datasets to business and risk teams.
- Implemented **PII and PCI data redaction** using **regular expressions** to identify and obscure sensitive fields across **on-premise Oracle and MySQL databases**, strengthening data security and compliance controls.

PROJECTS

Credit Default Risk Prediction [🔗](#)

- Built a supervised credit default prediction model on customer financial and behavioural data, performing EDA and feature engineering such as income-to-loan and EMI-to-income ratios to capture repayment capacity better.
- Modelled non-linear risk patterns using an artificial neural network instead of linear models, improving separation between defaulters and non-defaulters.
- Evaluated model performance using **ROC-AUC** to address class imbalance and focus on risk ranking rather than raw accuracy while achieving ROC-AUC of **0.87** on test data.

Agentic RAG Pipeline for Quantitative Alpha Research [🔗](#)

- Built an agentic RAG pipeline using **LangGraph** to ingest unstructured financial documents and generates structured alpha signals using LLMs, applying prompt engineering for reliable structured outputs.
- Implemented **semantic modeling** with a vector retrieval layer (**ChromaDB**, **Gemini embeddings**, cosine similarity search), grounding LLM outputs to reduce hallucination on domain-specific financial data.
- Automated the research-to-validation loop with async Python workflows, SQL-based experiment tracking, and programmatic backtesting via the WorldQuant Brain API, improving analytical productivity.

QuickCommerce Demand Intelligence & Personalization Engine [🔗](#)

- Built an end-to-end demand forecasting and customer targeting system on 1M+ simulated quick-commerce orders, using **K-Means** for customer segmentation and **XGBoost** with regression modeling for SKU-level demand prediction (MAPE <15%), processing large-scale data with **PySpark**.
- Designed an A/B experimentation framework with test/control structures, power analysis, and statistical significance testing to measure promo-targeting conversion uplift, translating results into actionable investment recommendations across customer segments.
- Developed a **GenAI**-powered automated insights layer using **RAG** architecture and prompt engineering (**LangChain** + ChromaDB) to generate business summaries and customer journey drop-off diagnostics, enabling personalization of product recommendations per segment.

TECHNICAL SKILLS

- **Programming language:** Python, SQL, PySpark
- **Machine Learning:** XGBoost, K-Means, Decision Trees, Random Forest, Regression Modeling, Neural Networks (LSTM, CNN), PyTorch, TensorFlow, scikit-learn
- **GenAI & NLP:** LLMs, RAG Architectures, Prompt Engineering, Semantic Search, LangChain, LangGraph, ChromaDB, Hugging Face, Text Mining.
- **Experimentation & Analytics:** A/B Testing, Statistical Significance Testing, Conversion & Funnel Analysis, Digital Analytics, Tableau, Power BI
- **Data Engineering & Cloud:** Azure Data Factory, Databricks, IBM DataStage, MDM, GCP, Docker, GitHub

LEADERSHIP SKILLS

- **Executive, Think India MNIT Club:** Led the planning and execution of large-scale events with **5,000+ attendees**, managing and coordinating a team of **20+ students** to ensure smooth operations and delivery.
- **Founder, Unicorn Club (2022):** Built and scaled a community of entrepreneurs, organizing and hosting **30+ talks** focused on practical business insights, collaboration, and knowledge sharing.