

SAKSHI GUSAIN

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Experience

National Australia Bank

Gurugram, India

Advisor Engineer-I | Marketing Data Science Team

03/2023 - 07/2024

- Managed critical BAU (Business-As-Usual) processes, including **feature store updates and model scoring**, contributing to approximately A\$33 million in annual incremental value.
- Implemented a **Testing Framework** using **PyTest** incorporating **Chi-square testing** for the feature store to identify data quality issues, preventing disruptions to 24 ML models.
- Conducted **advanced data analysis** using **Matplotlib and Seaborn** to evaluate refinancing patterns in home loan retention campaigns. Identified potential revenue losses due to refinancing, enabling data-driven retention strategies.
- Developed **21+ key business metrics** including sale price growth, LVR, and internal refinance using **SQL** for data science use cases by collaborating closely with stakeholders, ensuring data-driven decision-making.
- Deployed new Machine Learning models** into production by implementing best MLOps practices, including CI/CD pipelines, model monitoring, and automated retraining.
- Optimized batch inference scoring**, reducing processing time from 7 days to just 2 days (over **70% improvement**), enhancing operational efficiency and model scalability.

Amazon

Bangalore, India

Software Development Engineer Intern

01/2022 - 06/2022

- TPR Salvage Flow for NB**: Built an end-to-end service to improve third-party responses, **increasing Net Banking success rates by 6-7%** across India and **saving 700-900 daily transactions** from failing due to pending charge status issues.
- Acquired hands-on experience leveraging pivotal AWS resources, including **Step Function, Lambda, CloudWatch, and API Gateway**, enhancing proficiency in cloud-based solutions.
- Prepared the **full project lifecycle** from solution architecture to deployment, post-deployment monitoring, and 100% unit test coverage.
- Identified and mitigated SAS risks**, ensuring stability in critical workflows.
- Engineered a **real-time metric generation** system, monitoring diverse data points within the service and **deploying anomaly detection alarms**.

Skills

Technical Expertise:

Python • Pandas • NumPy • Matplotlib • PySpark • Pytest • PyTorch • Scikit-learn • SQL • Java • Git • GitHub • Amazon Web Services • AWS • Databricks • Power BI • Jupyter • VS Code • Excel • Data Structures and Algorithms • Object Oriented Programming • Data Visualization • ETL • Database Management System • Machine Learning • Statistics • Financial Analysis • Data Analysis • Testing Framework

Soft Skills & Strengths:

Analytical & Critical Thinking • Collaboration • Problem-Solving • Continuous Learning • Teamwork • Adaptability • Strong Work Ethic & Initiative

Education

Audencia Business School

Paris, France

Masters of Science in Data Management for Corporate Finance

09/2024 - Present

- Key Courses**: Statistics and econometrics, Strategic analysis, Python in finance, Big data and analytics, Financial data Visualization, Data management and analytics, Machine Learning, Basics of VBA for Excel
- Notable Projects**:
- AI Financial Insights Extractor using RAG** - A RAG-based system that retrieves real-time financial documents, processes them with embeddings, and generates insights using an LLM in a private, interactive Streamlit interface
- KPMG Financial Data Dashboard (Power BI)** - Designed an interactive dashboard for financial analysis
- Thesis**: "Predictive Finance Risk Analytics" - Benchmarking machine learning models for predicting business failure and credit risk

ABES Engineering College

Ghaziabad, India

Bachelor of Technology in Electronics and Communication Engineering

08/2018 - 07/2022

- Key Courses**: Programming for Problem Solving, Python Programming, DBMS, Operating Systems, SQL, Digital System Design, Optical Communication, Wireless and Mobile Communication, Computer System Security
- Notable Projects: Virtual Assistant Using Python** - A voice-controlled virtual assistant proficient in performing tasks

Awards

NAB Value Award (excellence for customers) — Prestigious award for exceptional contributions

Star Performer Award - NAB — In recognition of outstanding performance

Languages

English Proficient

Hindi Native