

# Mohammed Amaan Shaikh

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## EDUCATION

**Otto-von-Guericke-Universität**, Magdeburg, Germany  
*Master of Science in Data and Knowledge Engineering*

Oct 2024 – Sep 2026

**HSNC University**, Mumbai, India  
*Bachelor's of Science in Data Science and Business Analytics*

Sep 2020 – May 2023

## SKILLS

**Programming Languages:** Python | R Programming | SQL

**Data Science:** Machine Learning | Deep Learning | NLP | LLMs | Gen AI

**Frameworks:** Pytorch | Pyspark | Tensorflow | Keras | Scikit-learn | Hugging Face | Numpy | Pandas | Plotly

**Technologies:** Power BI | Tableau | MS Excel | MS Powerpoint | MS Office | Git | VS Code | Jupyter | Flask | Streamlit | Azure

## WORK EXPERIENCE

**Associate Analyst**

Feb 2024 – Sep 2024

**Deloitte US-India (Offices of the US)**

Mumbai, India

- Participated in team meetings and internal analysis discussions to understand business data requirements and reporting structures
- Utilized available time to deepen knowledge in SQL and Python for data analysis
- Analyzed internal datasets to practice data cleaning, visualization, and deriving insights from raw data
- Gained insights into real-world data processes and internal reporting standards
- Attended knowledge-sharing sessions to stay aligned with the team's methodology and tools

**Data Analyst Intern**

Mar 2023 – June 2023

**StayVista**

Mumbai, India

- Reviewed marketing and business reports (daily, weekly, monthly) using Excel and VLOOKUP.
- Conducted in-depth data analysis at multiple levels, leveraging Excel functions (pivot tables, formulas, and conditional formatting) to identify trends and insights.
- Prepared clear PowerPoint presentations to communicate insights to stakeholders.
- Developed methods for accurate and compliant data analysis and visualization using Power BI.
- Established efficient processes for data visualization.

## PROJECTS

**Credit Default Risk Assessment for Loan Approval**

- Developed a credit approval prediction model using the XGBoost algorithm
- Achieved an F1-score of 89.34% on test data, enhancing prediction reliability
- Applied feature engineering techniques such as debt-to-income ratio, loan-to-value ratio, and repayment behavior
- Used Weight of Evidence (WoE) and Information Value (IV) to improve model interpretability
- Evaluated model performance using AUC-ROC (0.92) and KS statistic (66.33%)
- Employed SHAP values to explain individual model predictions

**Segmentation of Credit Card Customers Using K-Means**

- Used the Kaggle credit card dataset containing demographic data, financial behavior, and usage patterns
- Performed feature engineering to create new variables such as spending ratios, activity metrics, and income-based indicators
- Achieved a Silhouette Score of 0.63 and a Davies-Bouldin Index of 0.71 to assess cluster quality
- Identified 3 optimal clusters using the Elbow Method: moderate users, credit-dependent heavy users, and high-income responsible users
- Developed targeted strategies for each cluster, such as debt management plans, premium reward offers, and financial education programs to improve customer retention

**Power BI Project - HealthCare Claims and Fraud Dashboard**

- Developed a Power BI dashboard to analyze healthcare claims and identify potential fraudulent activities.
- Visualized key metrics such as total claims, fraud rate, claims by provider, and claims trends over time.
- Created interactive charts, maps, and filters to allow detailed analysis by region, procedure, and approval status.
- Used Power Query and DAX to clean data, create calculated measures, and enhance insights.
- Provided actionable insights to support compliance monitoring and data-driven decision-making.

## PROFESSIONAL SUMMARY

Analytically-minded Data Scientist with experience in data analysis, machine learning, and model interpretation. Proficient in tools such as Python, R, SQL, Scikit-learn, TensorFlow, Pandas, and Tableau, as well as cloud platforms like AWS. Skilled in advanced Excel (including VBA), Power BI, Power Automate, and SharePoint for data visualization, workflow automation, and process optimization. Focused on developing data-driven solutions, optimizing predictive models, and extracting business insights from datasets. Currently pursuing a Master's in Data and Knowledge Engineering at Otto von Guericke University Magdeburg, with a Bachelor's in Data Science and Business Analytics. Dedicated to driving data-based innovation, improving efficiency, and creating measurable value.

## LANGUAGE SKILLS

English: C1

German: A2