# Tailored Resume for Barkaat Ali

## Personal Info

Name: Barkaat Ali

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## Profile

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Results-driven Machine Learning Engineer with a robust background in data engineering, analytics, and predictive modeling. Proficient in designing and deploying scalable data pipelines, modernizing data architectures, and implementing machine learning models to solve complex business problems. Experienced in leveraging cloud platforms like Azure and AWS for data warehousing, real-time processing, and advanced analytics. Skilled in Python, TensorFlow, PyTorch, and Scikit-learn, with a strong foundation in SQL and deep learning frameworks. Adept at transforming raw data into actionable insights through dynamic visualizations and reporting tools such as Tableau, Power BI, and Amazon QuickSight. Certified in Azure AI, Data Engineering, and GCP, with a proven track record of delivering high-impact solutions across diverse industries.

## Skills

- Data Preprocessing

- Model Optimization

- PyTorch

- SQL

- Scikit-learn

- TensorFlow

- azure ml

- deep learning

- machine learning

- matplotlib

- python

- seaborn

## Certifications

- Certified Data Scientist Associate

- Data Management in Databricks

- Data Science with Tableau

- GCP Certified: Professional Data Engineer

- Improving Query Performance in SQL Server

- Microsoft Certified: Azure AI Engineer Associate

- Microsoft Certified: Azure Data Engineer Associate

- Microsoft Certified: Fabric Analytics Engineer Associate

## Functional Skills

['```python\n["Data Analysis"', '"Model Development"', '"Problem Solving"', '"Algorithm Optimization"', '"Statistical Thinking"', '"Collaboration"', '"Critical Thinking"]\n```']

## Business Sector

['IT Services', 'Healthcare Technology']

## Languages

- English

- Urdu

## Work Experience

\*\*Ascend Analytics\*\*

\*Data & Analytics Engineer\*

\*December 2024 – Present\*

- Spearheaded the modernization of data warehouse infrastructure by migrating to Azure Cloud, enhancing scalability and performance.

- Re-architected the Enterprise Data Model to optimize data flow and accessibility for machine learning applications.

- Designed and implemented an audit logging system to ensure data integrity and compliance.

- Consolidated datasets using Azure Data Factory and developed dynamic, metadata-driven pipelines to streamline ETL processes.

\*\*Dotlabs\*\*

\*Data Engineer\*

\*June 2024 – Present\*

- Delivered scalable data pipelines and real-time data transformations for the Hopi Housing Service project, enabling actionable insights through KPI dashboards in Amazon QuickSight.

- Engineered a Redshift-based data warehouse for Sunderstorm Cannabis Company, incorporating SCD Type 2 for historical tracking and optimizing reporting workflows.

\*\*VaporVM\*\*

\*Data Scientist\*

\*July 2023 – June 2024\*

- Automated repetitive Excel reporting tasks, significantly reducing manual effort and improving efficiency.

- Developed and deployed machine learning models for predictive analytics and decision-making.

- Managed Cloudera clusters to support big data operations and performed ETL/ELT processes for data warehousing.

\*\*Contract.PK\*\*

\*Data Engineer\*

\*August 2022 – September 2022\*

- Designed robust ETL pipelines to ensure seamless data integration and processing.

- Architected an OLAP system to support advanced analytics and reporting.

- Implemented data consistency and concurrency controls to maintain system reliability.

\*\*PACRA\*\*

\*Data Scientist\*

\*June 2022 – August 2022\*

- Developed credit risk models leveraging machine learning and deep learning algorithms to predict financial outcomes.

- Extracted and analyzed financial report data to support credit risk assessments.

- Conducted predictive modeling to enhance decision-making in credit risk evaluation.

## Education

\*\*Bachelor of Science in Computer Science\*\*, Stanford University (Graduated: 2016)

\*\*Bachelor of Science in Data Science\*\*, University of California, Berkeley (Graduated: 2015)

## Projects

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- \*\*Dynamic Malware Analysis Using Machine Learning\*\*

Designed and implemented machine learning models to analyze and classify malware behavior dynamically. Leveraged Python, Scikit-learn, and TensorFlow to develop predictive algorithms, enhancing threat detection accuracy.

- \*\*Synapse-to-Fabric Modernization Project\*\*

Spearheaded the migration of data architecture from Azure Synapse to Microsoft Fabric. Optimized data pipelines, improved query performance, and ensured seamless integration with downstream analytics tools.

- \*\*Lakehouse Architecture with AWS Glue, S3, and Athena\*\*

Architected a modern data lakehouse solution using AWS Glue for ETL, S3 for scalable storage, and Athena for querying. Enabled efficient data processing and analytics for large-scale datasets.

- \*\*Credit Risk Data Engineering Prediction Pipeline\*\*

Developed an end-to-end machine learning pipeline for credit risk prediction. Engineered robust ETL workflows, applied deep learning models, and optimized data preprocessing for accurate risk assessment.

- \*\*Hopi Housing Service\*\*

Built a scalable data pipeline to capture real-time changes in housing data. Transformed JSON streaming data into structured formats, implemented DynamoDB triggers, and created KPI dashboards in Amazon QuickSight. Optimized data transformations using AWS Glue for improved performance.

- \*\*Data Warehousing for Sunderstorm Cannabis Company\*\*

Designed a Redshift-based data warehouse to support advanced reporting and analytics. Developed scalable ETL pipelines using AWS Glue and implemented Slowly Changing Dimensions (SCD Type 2) for historical data tracking.

- \*\*Middilion Data Architecture in Azure Synapse\*\*

Re-architected the data infrastructure for Middilion using Azure Synapse. Enhanced data modeling, improved query performance, and implemented advanced analytics capabilities for business insights.

- \*\*Inventory Analysis in Tableau\*\*

Conducted comprehensive inventory analysis using Tableau. Built interactive dashboards to track stock levels, optimize inventory turnover, and identify trends for improved decision-making.

- \*\*HR Analytics in Power BI\*\*

Developed HR analytics dashboards in Power BI to visualize employee performance, retention rates, and workforce trends. Provided actionable insights to support strategic HR initiatives.