# Tailored Resume for Barkaat Ali

## Personal Info

Name: Barkaat Ali

Email: barkaatali199@gmail.com

Phone: 0308-5616873

## Profile / Summary

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Results-driven Backend Developer with a strong foundation in data engineering, cloud computing, and backend system optimization. Adept at designing scalable, high-performance architectures and streamlining complex workflows to enhance operational efficiency. Proven expertise in modernizing legacy systems, building robust ETL pipelines, and implementing dynamic, metadata-driven solutions to reduce costs and improve performance. Skilled in Python, SQL, and RESTful API development, with hands-on experience in cloud platforms like Azure and AWS. Certified in Azure Data Engineering and AI, GCP Professional Data Engineering, and advanced SQL performance optimization. Passionate about leveraging data-driven insights and backend technologies to deliver innovative solutions that align with business goals.

## Skills

- Docker

- Java

- Node.js

- Python

- RESTful APIs

- aws

- git

- sql

## 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["Problem Solving"', '"System Design"', '"Code Optimization"', '"Scalability Planning"', '"Debugging"', '"Team Collaboration"', '"Requirement Analysis"]\n```']

## Business Sector

['IT Services', 'Software Development']

## Languages

- English

- Urdu

## Work Experience

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\*\*Data & Analytics Engineer\*\*

\*Ascend Analytics\*

\*December 2024 – Present\*

- Spearheaded the modernization of legacy AS/400 data warehouse infrastructure to Azure Cloud, achieving an 80% cost reduction.

- Re-architected the Enterprise Data Model (EDM) to a star schema, significantly enhancing query performance and scalability.

- Designed and implemented an audit logging system in Azure SQL to ensure data integrity and traceability.

- Consolidated over 400 datasets into 37 reusable datasets using Azure Data Factory, streamlining data management processes.

- Reduced pipeline complexity by 64%, developing dynamic, metadata-driven pipelines that cut the number of pipelines from 700 to 250.

\*\*Data Engineer\*\*

\*Dotlabs\*

\*June 2024 – Present\*

- Developed scalable and efficient data pipelines for clients, including Hopi Housing Service and Sunderstorm Cannabis Company.

- Optimized data transformations using AWS Glue and Parquet, reducing memory usage and query costs.

- Designed and implemented a Redshift-based data warehouse, optimizing the data model for faster querying and reporting.

- Built an interactive KPI dashboard in Amazon QuickSight, enabling real-time insights for business stakeholders.

\*\*Data Scientist\*\*

\*VaporVM\*

\*July 2023 – June 2024\*

- Automated repetitive Excel-based reporting tasks using Python, improving operational efficiency.

- Deployed machine learning models in distributed environments to support advanced analytics use cases.

- Established and managed a Cloudera cluster to support large-scale data processing.

- Conducted ETL/ELT operations to build a robust OLAP system, enhancing data accessibility for analytics teams.

\*\*Data Engineer\*\*

\*Contract.PK\*

\*August 2022 – September 2022\*

- Engineered high-performance ETL pipelines using Python, ensuring seamless data integration and processing.

- Designed and implemented an OLAP system with Python and SQL, significantly improving query performance and reporting capabilities.

- Enforced strict data consistency and concurrency controls to maintain data reliability.

\*\*Data Scientist Intern\*\*

\*PACRA\*

\*June 2022 – August 2022\*

- Developed credit risk models using Python and deep learning algorithms, improving predictive accuracy.

- Automated financial data extraction using Azure Form Recognizer, reducing manual data entry by 60%.

- Created interactive dashboards in Google Data Studio to visualize key insights for stakeholders.

## Education

\*\*Bachelor of Science in Computer Science\*\*, Stanford University (Graduated: 2018)

\*\*Bachelor of Science in Software Engineering\*\*, Massachusetts Institute of Technology (Graduated: 2016)

## Projects

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

- Designed and implemented a machine learning-based system to analyze malware behavior dynamically. Leveraged Python and distributed computing to process large datasets efficiently, enabling real-time threat detection and classification. Enhanced system scalability using Docker and RESTful APIs.

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

- Architected a modern Lakehouse solution leveraging AWS Glue for ETL, S3 for storage, and Athena for querying. Optimized data transformations using Parquet, reducing memory usage and query costs. This project demonstrated expertise in scalable data engineering and cloud-based backend systems.

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

- Spearheaded the migration of legacy data systems to Azure Synapse and Fabric, modernizing data architecture for improved scalability and performance. Implemented dynamic pipelines in Azure Data Factory, consolidating datasets and reducing pipeline count by 64%. Enhanced audit logging and metadata-driven workflows for robust data governance.

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

- Engineered a predictive data pipeline for credit risk modeling using Python and SQL. Integrated Azure Form Recognizer for automated data extraction and deep learning algorithms for predictive analytics. Streamlined ETL processes, improving data consistency and reducing manual intervention by 60%.

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

- Designed a scalable data architecture in Azure Synapse, transitioning from traditional OLAP systems to a star schema model. Improved query performance and reporting efficiency by re-architecting the Enterprise Data Model (EDM). Consolidated datasets and pipelines to reduce operational complexity and costs.

#### \*\*HR Analytics in Power BI\*\*

- Developed an end-to-end HR analytics solution using Power BI, Python, and Tableau Prep. Extracted and cleaned financial report data with Azure Form Recognizer, enabling predictive modeling with deep learning algorithms. Automated reporting workflows, reducing manual effort and enhancing data-driven decision-making.

#### \*\*Inventory Analysis in Tableau\*\*

- Conducted inventory analysis using Tableau, leveraging SQL and Python for data preparation and visualization. Designed interactive dashboards to monitor stock levels, identify trends, and optimize inventory management processes.

#### \*\*Intelligent Agent Deployment with Reasoning in Vertex AI\*\*

- Deployed intelligent agents in Vertex AI, incorporating reasoning capabilities for advanced decision-making. Utilized Python and machine learning frameworks to enhance agent functionality and scalability in backend systems.

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This section highlights the candidate's ability to design scalable backend architectures, optimize data pipelines, and implement advanced analytics solutions, aligning with the responsibilities of a Backend Developer role.