# Tailored Resume for Barkaat Ali

## Personal Info

Name: Barkaat Ali

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## Profile

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Results-driven Backend Developer with a strong foundation in data engineering, cloud computing, and scalable system design. Proficient in building robust backend architectures, optimizing data pipelines, and implementing efficient ETL/ELT processes in cloud environments such as Azure and AWS. Adept at leveraging Python, SQL, and RESTful APIs to develop high-performance solutions that enhance data accessibility and governance. Experienced in modernizing data warehouses, improving query performance, and automating workflows to reduce operational costs and increase scalability. Certified in Azure, AWS, and GCP technologies, with a proven track record of delivering impactful solutions for diverse industries. Passionate about driving innovation through backend development and data-driven decision-making.

## Skills

- Cloud Computing

- Docker

- 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"', '"Team Collaboration"', '"Debugging"', '"Requirement Analysis"]\n```']

## Business Sector

['IT Services', 'Software Development']

## Languages

- English

- Urdu

## Work Experience

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

\*Ascend Analytics\*

\*December 2024 – Present\*

- Spearheaded the migration and modernization of data warehouse infrastructure to Azure Cloud, achieving an 80% cost reduction.

- Re-architected the Enterprise Data Model, significantly enhancing query performance and scalability.

- Designed and implemented an audit logging system in Azure SQL, strengthening data governance and compliance.

- Consolidated and optimized datasets using Azure Data Factory, reducing pipeline complexity and improving system efficiency.

\*\*Data Engineer\*\*

\*Dotlabs\*

\*June 2024 – Present\*

- Engineered scalable data pipelines to process and transform streaming JSON data into structured formats for analytics.

- Designed and deployed a Redshift data warehouse for improved query performance and reporting efficiency.

- Automated schema detection and data transformations using AWS Glue, enhancing data processing workflows.

- Developed interactive dashboards in Amazon QuickSight, enabling real-time insights for business stakeholders.

\*\*Data Scientist\*\*

\*VaporVM\*

\*July 2023 – June 2024\*

- Automated repetitive Excel reporting tasks using Python, reducing processing time and improving accuracy.

- Deployed machine learning models in distributed environments, optimizing predictive analytics capabilities.

- Established and managed a Cloudera cluster, ensuring high-performance data processing and storage.

- Conducted ETL/ELT operations to support data warehousing and OLAP system development.

\*\*Data Scientist\*\*

\*PACRA\*

\*June 2022 – August 2022\*

- Built credit risk models using Python and deep learning algorithms to enhance predictive accuracy.

- Extracted financial data using Azure Form Recognizer and automated data preparation with Tableau Prep.

- Created interactive dashboards in Google Data Studio, improving data visualization and decision-making processes.

\*\*Data Engineer\*\*

\*Contract.PK\*

\*August 2022 – September 2022\*

- Designed and implemented ETL pipelines for both SQL and NoSQL databases, ensuring seamless data integration.

- Architected an OLAP system with optimized schemas and indexing, improving query performance and scalability.

- Established robust data consistency and concurrency controls, ensuring reliable transaction management.

## 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 backend system leveraging Python and machine learning algorithms to analyze malware behavior dynamically. Integrated RESTful APIs for seamless interaction between the analysis engine and external tools. Enhanced system scalability using Docker containers, ensuring consistent performance across environments.

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

- Architected a data lakehouse solution using AWS Glue for ETL processes, S3 for storage, and Athena for querying structured and semi-structured data. Automated schema handling with weekly crawlers, improving data accessibility and reducing manual intervention. Optimized backend workflows to support scalable data processing for high-volume datasets.

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

- Spearheaded the modernization of data infrastructure from Azure Synapse to Microsoft Fabric, enabling seamless integration with advanced analytics tools. Re-engineered backend data pipelines and query structures, significantly improving performance and scalability while reducing operational costs.

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

- Developed an end-to-end backend pipeline for credit risk prediction using Python and SQL. Engineered ETL processes to extract and transform financial data, implemented deep learning algorithms for predictive modeling, and optimized database schemas for efficient query execution.

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

- Designed and deployed a robust backend architecture in Azure Synapse, consolidating datasets and optimizing data models for enterprise-scale analytics. Improved query performance and scalability by re-architecting the data warehouse infrastructure, enabling faster decision-making processes.

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

- Built a backend pipeline to extract financial report data using Azure Form Recognizer, clean and transform data with Python and Tableau Prep, and feed it into Power BI dashboards. Implemented deep learning algorithms for predictive analytics, reducing manual data handling by 60% and enhancing reporting efficiency.

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

- Developed a backend system to process inventory data and feed it into Tableau dashboards for real-time analysis. Automated data extraction and transformation processes using Python and SQL, improving data accuracy and visualization speed.

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

- Engineered backend workflows for deploying intelligent agents in Vertex AI, enabling advanced reasoning capabilities. Integrated cloud-based solutions for scalable data processing and optimized API endpoints for seamless interaction with external systems.