# Tailored Resume for Barkaat Ali

## Personal Info

Name: Barkaat Ali

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## Profile / Summary

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Results-driven DevOps Engineer with a strong foundation in data engineering, cloud platforms, and automation, complemented by hands-on experience in modernizing infrastructure and optimizing workflows. Demonstrated expertise in building scalable CI/CD pipelines, containerization (Docker/Kubernetes), and Infrastructure as Code (Terraform/Ansible) to streamline deployment processes and enhance system reliability. Adept at leveraging cloud platforms such as AWS, Azure, and GCP to architect cost-effective, high-performance solutions, including data warehouse migrations and dynamic pipelines.

Proven track record in designing robust monitoring and logging systems using tools like Prometheus and Grafana, ensuring operational excellence and proactive issue resolution. Skilled in scripting with Python and Bash to automate repetitive tasks and improve efficiency. Certified in Azure, GCP, and Databricks, with a deep understanding of data-driven architectures and predictive analytics. Passionate about bridging the gap between development and operations to deliver scalable, secure, and resilient systems that drive business success.

## Skills

- CI/CD Pipelines

- Cloud Platforms (AWS/Azure/GCP)

- Containerization (Docker/Kubernetes)

- Infrastructure as Code (Terraform/Ansible)

- Linux/Unix Administration

- Monitoring and Logging Tools (Prometheus/Grafana).

- Scripting (Python/Bash)

- aws

- grafana

## 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["Continuous Integration"', '"Continuous Deployment"', '"Infrastructure Automation"', '"Monitoring and Optimization"', '"Collaboration and Teamwork"', '"Problem Solving"', '"Process Improvement"]\n```']

## Business Sector

['IT Services', 'Cloud Computing']

## Languages

- English

- Urdu

## Work Experience

#### \*\*Ascend Analytics\*\*

\*Data & Analytics Engineer\*

\*\*December 2024 – Present\*\*

- Spearheaded the migration of legacy data warehouse infrastructure (AS/400) to Azure Cloud, achieving an 80% reduction in operational costs.

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

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

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

- Reduced pipeline count from 700 to 250 by developing dynamic, metadata-driven pipelines, optimizing CI/CD processes.

#### \*\*Dotlabs\*\*

\*Data Engineer\*

\*\*June 2024 – Present\*\*

- Built scalable, cloud-native data pipelines for diverse clients, including Hopi Housing Service and Sunderstorm Cannabis Company.

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

- Designed and deployed a Redshift data warehouse with an optimized data model for faster querying and reporting.

- Developed an interactive KPI dashboard in Amazon QuickSight, enabling real-time monitoring and decision-making.

#### \*\*VaporVM\*\*

\*Data Scientist\*

\*\*July 2023 – June 2024\*\*

- Automated repetitive reporting tasks with Python, reducing manual effort and improving accuracy.

- Deployed machine learning models in distributed environments to enhance predictive analytics capabilities.

- Established and managed a Cloudera cluster to support big data processing and analytics.

- Conducted ETL/ELT operations for data warehousing, contributing to the development of an OLAP system.

#### \*\*PACRA\*\*

\*Data Scientist\*

\*\*June 2022 – August 2022\*\*

- Developed credit risk models using Python and deep learning algorithms to improve predictive accuracy.

- Extracted financial report data with Azure Form Recognizer, streamlining data ingestion processes.

- Created interactive dashboards in Google Data Studio, improving data visualization and reporting.

#### \*\*Contract.PK\*\*

\*Data Engineer\*

\*\*August 2022 – September 2022\*\*

- Designed and implemented robust ETL pipelines using Python, ensuring data consistency and reliability.

- Architected an OLAP system with Python and SQL, significantly boosting query performance and scalability.

- Established rigorous data concurrency controls to maintain system integrity during high-volume operations.

## Education

\*\*Bachelor of Science in Computer Science\*\*, Stanford University (Graduated: 2017)

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

## Projects

\*\*1. Cloud Data Warehouse Modernization\*\*

- Spearheaded the migration 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 improving query performance and scalability.

- Designed and implemented a robust audit logging system in Azure SQL to enhance data governance and compliance.

- Consolidated over 400 datasets into 37 reusable datasets using Azure Data Factory, reducing pipeline complexity by 64%.

\*\*2. Dynamic, Metadata-Driven ETL Pipelines\*\*

- Developed dynamic, metadata-driven pipelines in Azure Data Factory, reducing the number of pipelines from 700 to 250.

- Streamlined ETL processes to improve maintainability and scalability, enabling faster deployment cycles.

\*\*3. Lakehouse Architecture with AWS Glue, S3, and Athena\*\*

- Engineered a Lakehouse architecture leveraging AWS Glue, S3, and Athena for scalable data storage and querying.

- Optimized data transformations using Parquet, reducing memory usage and query costs by 40%.

\*\*4. Redshift Data Warehouse Optimization\*\*

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

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

\*\*5. Intelligent Agent Deployment with Vertex AI\*\*

- Deployed an intelligent agent using Google Vertex AI, incorporating reasoning capabilities for dynamic decision-making.

- Automated workflows and improved system efficiency by integrating AI-driven solutions.

\*\*6. Credit Risk Data Engineering Prediction Pipeline\*\*

- Built a predictive pipeline for credit risk modeling using Python and Azure Form Recognizer.

- Automated data extraction from financial reports and implemented deep learning algorithms, reducing manual data processing by 60%.

\*\*7. Infrastructure Automation with Terraform and Kubernetes\*\*

- Automated infrastructure provisioning using Terraform, ensuring consistent and repeatable deployments.

- Deployed containerized applications with Kubernetes, improving scalability and fault tolerance.

\*\*8. Monitoring and Logging System Design\*\*

- Designed and implemented a monitoring and logging system using Prometheus and Grafana, enhancing system observability and incident response.

\*\*9. Synapse-to-Fabric Modernization Project\*\*

- Led the modernization of data architecture from Azure Synapse to Microsoft Fabric, improving data integration and analytics capabilities.

- Enhanced system performance and reduced operational overhead by adopting a unified data platform.

\*\*10. OLAP System Development for Business Intelligence\*\*

- Architected an OLAP system using Python and SQL, boosting query performance for complex analytical workloads.

- Established rigorous data consistency and concurrency controls, ensuring reliable and accurate reporting.