SIBABALWE SINYANISO

Data Engineer

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PROFILE

Junior Data Engineer with 3+ years of experience designing ETL pipelines and automating data workflows using Python, SQL, Flask and Apache Airflow. Proven track record of optimizing data processing systems by 40% and building scalable solutions that improve operational efficiency across cloud and on-premise environments.

WORK EXPERIENCE

JUNIOR DATA ENGINEER

Eighty20 Consulting – Cape Town, Woodstock

February 2023 – Present

- Designed and improved over 15 data pipelines using AWS services (S3, EC2, RDS) and SFTP, which cut data processing time by around 40% while keeping systems reliably available.
- Automated SQL queries through ODBC in Excel, saving roughly 20 hours of manual work each week and speeding up data delivery by about 60%.
- Built and managed 25+ Apache Airflow DAGs with proactive monitoring, keeping pipelines running smoothly and reducing downtime to less than 2 hours per month.
- Optimized SQL queries in critical workflows, bringing processing times down from 2 hours to around 30 minutes.
- Created automated data validation processes covering all pipelines, helping maintain near-perfect data accuracy and preventing recurring data issues.
- Investigated and resolved data anomalies quickly, fixing most pipeline problems within a few hours to minimize business impact.
- Worked closely with multiple teams to develop scalable solutions, contributing to the successful rollout of 3 major data projects.
- Documented pipeline structures and troubleshooting guides, which cut onboarding time for new team members by about half.

JUNIOR DEVELOPER

Eighty20 Consulting – Cape Town, Woodstock

July 2022 – January 2023

- Designed and implemented ETL pipelines to process 500MB+ of daily survey data into a MySQL database, supporting an internal web application used by 100+ users.
- Maintained and optimized the web app by improving Python scripts with Pandas and SQL, boosting data processing efficiency by around 35%.
- Refactored an R-based data pipeline into Python, making it easier to maintain and cutting execution time by roughly 25%.
- Collaborated with a 3-person development team to resolve data inconsistencies, achieving a 98% improvement in data quality.
- Built hands-on experience in data engineering best practices, database management, and workflow automation through project delivery.

EDUCATION

Cape Peninsula University of Technology

2019 - 2023

Diploma in Mathematical Sciences

CERTIFICATIONS

- AWS Partner: Accreditation (Technical) – Amazon Web Services (August 2025)
- Python Database Mastery: Dive into SQLAlchemy & Alembic – Udemy (August 2025)
- Python Database Course: SQLite, PostgreSQL, MySQL, SQLAlchemy – Udemy (February 2025)
- ChatGPT Prompt Engineering for Developers – DeepLearning.AI (April 2024)
- Data Analysis with Python: Zero to Pandas – Jovian (April 2022)

TECHNICAL SKILLS

- Programming Languages: Python, SQL
- Frameworks & Tools: Apache Airflow, Flask
- Cloud Platforms: AWS (S3, EC2, RDS)
- Databases: MySQL, PostgreSQL, Vertica
- Data & Analytics Tools: Microsoft Excel, Pandas
- Specializations: ETL Processes, Data Pipeline Architecture, Workflow Automation
- Soft Skills: Problem-solving, Cross-functional Collaboration, Technical Documentation, System Troubleshooting, Remote work discipline (2+ years experience)
- Version Control: Git/GitHub

KEY ACHIEVEMENTS & PROJECTS

Data Pipeline Automation & Optimization

- **SFTP Data Export Pipeline**: Built a secure automated pipeline that eliminated manual data transfers and improved data accessibility for 5+ external clients.
- **Airflow Log Management System**: Developed an automated maintenance pipeline, optimizing storage usage by 70% and improving performance across the production environment.
- **Database Archiving Solution**: Implemented an in-database archiving process, speeding up queries by 55% and reducing storage costs by 40%.
- **S3 Data Migration Pipeline**: Designed and executed a pipeline transferring 10TB+ of archived records to S3, enhancing long-term data access while lowering costs by 35%.

Technical Leadership & Community Contribution

- Created beginner-friendly Python projects to introduce newcomers to Python and Data Engineering concepts through hands-on, practical applications.
- Authored detailed technical articles on Medium, sharing real-world use cases and contributing to the Python and Data Engineering community.
- Actively engaged with the tech community by sharing insights, fostering discussions, and providing resources for aspiring data engineers.

COVER LETTER

Dear Hiring Manager,

I am excited to apply for the Data Engineer position at your organization. As a Junior Data Engineer with over three years of hands-on experience, I have designed and optimized data pipelines that improved processing efficiency by around 40% while maintaining high system reliability.

My technical toolkit includes Python, SQL, Apache Airflow, and AWS cloud services, complemented by certifications such as the AWS Partner Technical Accreditation and advanced Python database courses. At Eighty20 Consulting, I built 15+ automated data pipelines, eliminated over 20 hours of manual work per week, and implemented validation systems that helped prevent critical data quality issues.

I am particularly motivated to contribute to your data engineering projects and would welcome the chance to discuss how my experience building scalable, reliable data solutions can support your team's goals.

Thank you for considering my application. I look forward to the opportunity to speak with you.

Sincerely,
 Sibabalwe Sinyaniso