Jacob Krol

ADDITIONAL RESOURCES

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SUMMARY

A data-driven professional with a background in data engineering, data analytics, and biotechnology. I am seeking a role in data engineering where I can make a large impact through my work. I am eager to apply my analytic and process optimization skillset to improve operational efficiency and contribute to data-driven decision-making.

EXPERIENCE

Simpluris, Oviedo, FL (Remote)— *Data Analyst I / II*
July 2024 - Current

- Engineered scalable data solutions, including redesigning a core ingestion process that cut runtime by 99%, to support business expansion initiatives.

- Automated high-volume workflows using Python, improving data accessibility and reliability, parallelizing data ingestion, and increasing throughput by 125%.

- Architected, built, and maintained distributed data pipelines leveraging Microsoft Fabric's DirectLake access mode to enable scalable data processing and rapid visualization of large datasets.

- Designed and executed A/B tests to evaluate on-premise large language model (LLM) deployment strategies, optimizing automation of high-volume production workflows..

- Developed production-grade SQL queries and stored procedures to support critical business functions for a multi-terabyte relational database.

- Collaborated with cross-functional teams to design and build Power BI and SSRS reports and dashboards, dramatically reducing the search time required for key stakeholders to acquire operationally critical data.

- Developed resilient ingestion pipelines for high-volume vendor data, ensuring reliability and accuracy across millions of records.

Daicel Arbor Biosciences, Ann Arbor, MI— Research Associate/ *Scientist*
August 2020 - June 2024

- Designed and maintained ETL pipelines in order to streamline statistical analysis and visualization of experimental data and efficiently convey results to stakeholders.

- Utilized Lean Six Sigma concepts to improve data collection and handling practices within the organization.

- Performed and coordinated experimentation with international teams to upscale and standardize manufacturing processes.

TECHNICAL SKILLS

· Python
· SQL
· PySpark, Pandas, Scikit-Learn
· Rust
· Microsoft Fabric
· Tableau, Power BI, SSRS
· Distributed Data Processing
· A/B Testing
· Data modeling

PROFESSIONAL SKILLS

· Fast and Adaptive Learner
· Stakeholder Engagement/ Presentations
· Communicating technical insights to non-technical stakeholders

EDUCATION

Bachelor of Science (B.Sc.) - Oakland University, Rochester, MI

September 2016 - December 2019

CERTIFICATES

Advanced Data Analytics Certificate - Coursera

March 2024

Certificate in Biotechnology Engineering with Distinction - University of Southern California, Los Angeles, CA

June 2023

PUBLICATIONS

Krol, J. and Tawil, B. "Cell-based meat: farming from a fermenter." Journal of Applied Biotechnology and Bioengineering 10.1 (2023): 17-22.
https://doi.org/10.15406/jabb.2023.10.00322