SEUNGRYUL LEE

DATABASE ENGINEER

Email: srlee02099@gmail.com

Phone: 862-682-1497

Location: New York City Metropolitan Area

EDUCATION

New Jersey Institute of Technology

Bachelor of Science in Applied Mathematics

PROFESSIONAL SKILLS

- **Data Engineering & Cloud Platforms**
  - Expert in Databricks, Snowflake, and Redshift for advanced data modeling and query performance.
  - Designed cloud migration strategies, tailoring solutions

- **Data Pipelines & Automation**
  - Architected scalable data pipelines (synchronous & asynchronous) with Apache Airflow and AWS SageMaker, driving efficiency and automation.

- **Azure Database**
  - Designed, monitored Azure Data Factory (ADF) pipelines for large-scale life sciences datasets (HCP and patient data), ensuring reliability and compliance with regulatory standards.
  - Implemented performance optimization and error-handling mechanisms in ADF.
  - Optimized data models and workflows in Azure SQL Database and Synapse Analytics, supporting advanced analytics and downstream healthcare reporting.

SUMMARY

Innovative Data Engineer with 3+ years of experience in R&D and Big Data, specializing in data modeling, pipeline optimization, and automation. Skilled at designing scalable data solutions that ensure integrity, reliability, and performance. Proficient in Databricks, Snowflake, Redshift, SQL, Python, Power BI, Ubuntu, C++, Java, and Shell scripting, with strong expertise in automation, ETL workflows, and regression testing. Experienced in applying advanced analytics and machine learning (TensorFlow, PyTorch, NumPy) to deliver data-driven insights. Passionate about leveraging AI and data engineering to solve complex business challenges in fast-paced, collaborative environments.

WORK EXPERIENCE

R&D - Software Engineer in Axtria inc. (2024-2025)

- Designed and maintained scalable ETL pipelines, integrating automation to streamline data processing and significantly reduce latency.
- Utilized SQL and Python for schema migrations, table partitioning, and query optimization to improve system efficiency.
- Implemented data validation frameworks and quality checks, ensuring accuracy, integrity, and reliability of large-scale datasets.
- Collaborated with cross-functional teams to deliver data solutions aligned with business requirements.

R&D - Data Engineer in Axtria inc. (2023-2024)

- Specialized in Databricks, Snowflake, Redshift, and Azure Data Factory (ADF), leading efforts in database architecture, pipeline orchestration, optimization, and performance tuning.
- Developed and executed indexing strategies, regression testing, and ADF pipeline troubleshooting/monitoring frameworks to ensure scalability, reliability, and system stability.
- Enhanced data modeling, architecture designs, and ADF workflows, driving improvements in query performance, resource efficiency, and overall pipeline throughput.

Big Data – AI Data Analyst & Researcher in Humanf (2022-2023)

- Optimized AI-driven models for autonomous driving using machine learning techniques such as TensorFlow, Pandas and NumPy.
- Automated data processing workflows with Python and C++, enhancing model efficiency.
- Managed databases, filtered datasets, and conducted in-depth analyses to refine AI sensor models.

Rehabilitation Laboratory Assistant in Seoul National University (2019-2020)

- Optimized AI sensor models for autonomous driving with large-scale datasets using TensorFlow, NumPy, and Pandas.
- Automated data workflows with Python and C++ to streamline feature engineering and model training.