WESLEY LAU

(571) 354-9369 • wesleylau.wcl@gmail.com • LinkedIn

PROFESSIONAL EXPERIENCE

Data Engineer | National Cancer Institute | Contractor   2022 – 2025
- Expanded existing Neo4j data model, integrating over 50 incoming structural and non-structural data points from diverse systems.
- Revamped the ETL workflow to seamlessly integrate new data entities, attributes, and relationships from an updated data model.
- Implemented event-driven ETL automation with AWS Lambda that triggered the ETL process based on S3 uploads.
- Created data visualization with data from the Neo4j database to streamline data analysis processes in Jupyter notebook.
- Engineered a Node.js API that streamlined connections between the front-end application and MongoDB.

Data Engineer | United States Department of Homeland Security | Contractor   2021 – 2022
- Coordinated efforts with SME and key stakeholders to define data policy; established an effective governance framework.
- Collaborated in designing an Enterprise Data Warehouse that centralized housing data from 8 agencies.
- Devised a migration plan for integrating 30+ datasets from multiple systems to the data warehouse.
- Built interactive dashboards in Tableau leveraging the data repository, leading to more informed decision-making processes help start 2 initiatives.
- Wrote and maintained a SQL query to decrease the processing burden on Tableau Server, reducing report generation time by 60%.

Data Analyst | FEMA | Contractor   2018 – 2021
- Constructed data pipelines with AWS Glue to seamlessly ingest and transform legacy datasets from Oracle and Postgres, achieving streamlined loading into the AWS S3 data lake for enhanced accessibility.
- Designed and implemented a complex AWS Athena query system to retrieve and process data from AWS S3 data lake, enabling faster insights for the data science team.
- Collaborated with stakeholders to create standardized data models and enforce consistency across relational databases (AWS Aurora, Oracle) and non-structural repository (AWS S3, DynamoDB).
- Constructed a layered data architecture with a normalized central Layer and a staging Area; tailored data marts to meet the unique analytical needs for different reports.

Data Analyst | Flagstar Bank| Contractor   2017-2018
- Developed and deployed an efficient custom ETL framework that parsed complex XML structures along with JSON datasets into MongoDB; streamlined data processing workflows, saving approximately 30 hours per month.

Data Analyst | First Guarantee Mortgage Company | Contractor   2016 - 2018
- Designed a comprehensive data visualization dashboard leveraging Qlik Sense to convey complicated data sets to the business Analysts for improving customer's experience.
- Engineered a robust Talend ETL pipeline to seamlessly transfer large datasets from an Oracle database into MongoDB; increased data accessibility for business analysts by ensuring integration was completed within two hours daily.

EDUCATION

OLIVET NAZARENE UNIVERSITY   Bourbonnais, IL
Bachelor of Engineering, Major in Electrical Engineering   2012 – 2016

OTHER

Technical Skills: Data Warehouse, ETL/ ELT, Change Management, Data Governance
Tools and software: Python (PySpark, dbt, Pandas, PySpark), RDBMS (SQL Server, Postgres, Oracle, MySQL), Non-structural data store (MongoDB, Neo4j, XML, Json), Node JS, Tableau, Power BI, Excel, AWS, Git, Docker, Jira
Certification: Meta Database engineer (Jan 2025), Google Advanced Data Analytics Specialization (Mar 2024)