

WESLEY LAU

Education

BACHELOR OF SCIENCE IN ENGINEERING – Drexel University – Bourbonnais, IL
Majors: Electrical Engineering

Jun 2016

Certification

QLIK SENSE DATA ARCHITECT-V3

Credential ID: QSDA0368v3

Sept 2017

GOOGLE ADVANCED DATA ANALYTICS SPECIALIZATION

Credential ID: 2FA6R2B257GJ

Mar 2024

Technical Skills

Python

pandas, matplotlib, PySpark

Database Management

Oracle, Postgres, SQL Server, MySQL, ETL Processes

Data Visualization

Power BI, Tableau

AWS

S3, Athena, Glue, DynamoDB

Data Modeling

Erwin Data Modeler, Oracle SQL Developer Data Modeler

NoSQL

MongoDB, Neo4j, JSON, XML

Work Experience

DATA ENGINEER – National Cancer Institute – Bethesda, MD

Dec 2022 - Jan 2024

- Led the integration of MongoDB and PostgreSQL datasets into Neo4j, transforming relational and document-based data into graph structures to enable advanced network analysis and visualization.
- Expanded the existing Neo4j data repository by integrating additional 2 data sources.
- Optimized the Python data loader system by implementing multithreading and data caching techniques, increasing data loading speed and efficiency.

DATA ANALYST – DHS HQ – Arlington, VA

May 2021 - May 2022

- Designed and implemented a centralized data repository using Oracle SQL Developer Data Modeler to integrate data from multiple sources, improving data accessibility and consistency across departments.
- Diagnosed and resolved database performance bottlenecks using SQL Tuning Advisor, reducing system downtime and increasing overall efficiency by 35%.
- Architected and executed a complex SQL query to aggregate data from centralized data repository, reducing report generation time by 60%.

DATA ANALYST – DHS FEMA – Washington D.C.

Aug 2018 – May 2021

- Modeled the database schema to support unified data standards and easy access for cross-departmental reporting.
- Developed and implemented a complex AWS Athena query system to retrieve and process data from AWS data storage system, enabling faster insights for the data science team.
- Developed and managed ETL processes using AWS Glue, automating data extraction, transformation, and loading for analytics and reporting.
- Refined and optimized existing DynamoDB schemas to support new data entities and streamline integration, improving data retrieval times by 20%.

DATA ANALYST – Flagstar Bank – Detroit, MI

Oct 2017 – Mar 2018

- Deployed a customized ETL solution to parse and load XML and JSON data into MongoDB.
- Created comprehensive ER diagrams to support business requirements and improve communication between stakeholders and the technical team.
- Created interactive data visualizations for 230 non-technical employees, simplifying complex data sets and facilitating better decision-making; increased data comprehension and actionable insights across the organization.

DATA ANALYST – First Guarantee Mortgage Company – McLean, VA

Sept 2016 – Sept 2017

- Leveraged SQL, Python, and Qlik Sense to analyze 20TB of data and improved business decisions making.
- Designed a comprehensive data visualization dashboard leveraging Qlik Sense to convey complicated data sets to the business Analysts for improving customer's experience.
- Constructed custom Talend job to extract data from centralize Oracle database to transactional MongoDB.