

Wesley Lau

Database Developer

PROFESSIONAL EXPERIENCE

National Cancer Institute
Data Engineer

Dec 2022 – Jan 2024
Bethesda, MD

- Expanded the Neo4j data model to integrate data from MongoDB and Postgres, enriching the dataset with over 50,000 records.
- Mapped and incorporated a new data source into the centralized database, converting 500 structural data points to NoSQL.
- Optimized the Python data loader system by implementing multithreading and data caching techniques, increasing data loading speed and efficiency.
- Formulated and implemented a customized Cypher query to extract data from Neo4j Nodes, improving data accessibility and enabling swift data extraction within a complex database structure.

DHS HQ
Data Analyst


May 2021 – Jun 2022
Arlington, VA


- Built a data hub that facilitated the integration of 5 databases, including SQL Server and Oracle; the solution is currently utilized by the data management team.
- Developed a streamlined ETL system that extracted and loaded over 200,000 records monthly from multiple agencies into the centralized database.
- Architected and executed a complex SQL query to aggregate data from centralize data repository, reducing report generation time from 20 minutes to under 5 minutes.


DHS FEMA
Data Analyst

Aug 2018 – May 2021
Washington D.C.

- 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.
- Orchestrated a successful migration of data analysis systems to the cloud, leading to an improvement in system scalability and a 55% increase in data processing speed.
- Revamped data loading process by reconstructing an existing Python data loader with AWS Glue and data catalog; optimized data processing efficiency and reduced data loading time by 50%.
- Introduced JSON schema for managing NoSQL data structures; achieved an improvement in data retrieval efficiency, enabling faster processing and analysis of critical business information.

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 [LinkedIn Profile](#)

SKILLS

- Data Analysis
- Data Cleansing
- Data Warehousing
- Database management
- Systems Integration
- Extract, Transform, Load
- Data Visualization
- Data Modeling

Certification

- Google Advanced Data Analytics Specialization. (Mar 2024)
- Google Data Analytics Professional Certificate. (Feb 2024)
- Qlik Sense Data Architect - v3. (Aug 2016)
- Microsoft Certified: Power Platform Functional Consultant Associate (Expected Oct 2024)
- AWS Certified Data Engineer – Associate (Expected Nov 2024)

EDUCATION

Olivet Nazarene University,
Bachelor of Science in
Engineering,
Electrical Engineering

Tools

- AWS
- Docker
- Python (Pandas, PySpark)
- Git (GitHub, GitLab)
- RDBMS (Oracle, Postgres, MySQL, SQL Server)
- MongoDB
- Neo4j
- Qlik Sense
- Tableau
- Power BI
- Talend

Flagstar Bank
Data Analyst

OCT 2017 – Mar 2018
Detroit, MI

- Designed data pipeline that imports data from different data base including Oracle, MongoDB and S3 files into Qlik sense.
- Deployed a customized ETL solution ETL job to parse and load XML and JSON data into MongoDB.
- 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.

First Guarantee Mortgage Company
Data Analyst

SEPT 2016 – Sept 2017
McLean, VA

- 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.
- Established BI connector between MongoDB and Qlik Sense within Linux environment Generate reports.

Language
• English
• Chinese

