Wesley Lau

Database Developer

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in LinkedIn Profile

PROFESSIONAL EXPERIENCE

National Cancer Institute
Data Engineer
12/2022 – 1/2024
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
05/2021 – 6/2022
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, ensuring data integrity and supporting complex queries for enhanced operational efficiency.

- Architected and executed a complex SQL query to aggregate data from multiple sources, reducing report generation time from 20 minutes to under 5 minutes.

DHS FEMA
Data Analyst
08/2018 – 05/2021
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.

SKILLS

- Data Analysis
- Data Cleansing
- Data Warehousing
- Data Mapping
- Database management
- Systems Integration
- Database Development
- 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)
- AWS Certified Data Engineer – Associate (Expected Nov 2024)

Tools

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

EDUCATION

Olivet Nazarene University, Bourbonnais, IL
Bachelor of Science in **Engineering, Electrical Engineering**
(2012 - 2016)

Flagstar Bank   10/2017 – 03/2018
Data Analyst   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   09/2016 – 09/2017
Data Analyst   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