Wesley Lau

Data Analyst

PROFESSIONAL EXPERIENCE

National Cancer Institute   Dec 2022 – Jan 2024
Data Engineer   Bethesda, MD

- 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.
- Developed custom Cypher queries to map relationships and nodes within Neo4j, unlocking new insights from previously siloed data sources.
- Optimized the Python data loader system by implementing multithreading and data caching techniques, increasing data loading speed and efficiency.
- Transformed graph data into actionable insights by leveraging Tableau's advanced visualization features (filters, calculated fields, parameters) to represent node relationships and network patterns.

DHS HQ   May 2021 – Jun 2022
Data Analyst   Arlington, VA

- Utilized Oracle Enterprise Manager (OEM) to monitor performance metrics and implemented resource optimization strategies, decreasing CPU usage by 25%.
- Diagnosed and resolved database performance bottlenecks using AWR reports and SQL Tuning Advisor, reducing system downtime and increasing overall efficiency by 35%.
- Built custom, enterprise level data visualization dashboard to enable data exploration by data architect for designing centralize data repository.
- Reduced average query response time by 40% through SQL query analysis and restructuring, leveraging advanced indexing strategies and execution plan tuning.

DHS FEMA   Aug 2018 – May 2021
Data Analyst   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.
- Developed and managed ETL processes using AWS Glue, automating data extraction, transformation, and loading for analytics and reporting.
- Wrote and optimized ETL scripts in Python, improving data processing efficiency by 30%.
- Built an interactive data visualization dashboard for business analysts, facilitating better understanding of complex data sets.
- Fine-tuned SQL Server 2019 database, reducing query execution times by 60% through optimization of execution plans, query restructuring, and proper indexing.
- Optimized AWS DynamoDB performance for large-scale applications by redesigning partition keys and implementing efficient query strategies, improving query performance by 40%.

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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)

Tools/ Software

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

EDUCATION

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

Flagstar Bank   Oct 2017 – Mar 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   Sept 2016 – Sept 2017
Data Analyst   McLean, VA

- Leveraged SQL, Python, and Qlik Sense to analyze 20TB of data and improved business decisions making.

- Created 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.