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| **Wesley Lau**  Data Engineer  **PROFESSIONAL EXPERIENCE**  **National Cancer Institute** 12/2022 – 1/2024  Data EngineerBethesda, MD   * Reviewed the existing Neo4j data model and provided updated model that better house the incoming data. * Optimized the Python data loader system by implementing multithreading and data caching techniques, increasing data loading speed and efficiency. * Crafted a flexible data schema architecture to accommodate diverse user inputs, leading to a 50% reduction in data processing time and enhancing scalability for future data sources. * 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** 05/2021 – 6/2022  Data AnalystArlington, VA   * Coordinated with multiple DHS agencies to identify and consolidate data requirements for integration into centralized platform, optimizing data accessibility. * Engineered and rolled out a centralized data catalog solution with Collibra for business analysts, streamlining data accessibility and search functionalities. * Developed and implemented custom Collibra workflows to enable automation of self-service and user management. * Architected and executed a complex SQL query to aggregate data from multiple sources, reducing report generation time. * Developed custom ETL jobs utilizing Python and SQL to streamline data processing and integration.   **DHS FEMA** 08/2018 – 05/2021  Data AnalystWashington 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. * Crafted detailed data flow diagrams illustrating existing system interactions, laying groundwork for centralized data model creation; reducing data redundancy. * 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. * Generate an interactive data visualization dashboard for business analysts, facilitating better understanding of complex data sets. * 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 multiple NoSQL data structures; achieved an improvement in data retrieval efficiency, enabling faster processing and analysis of critical business information.   **Flagstar Bank** 10/2017 – 03/2018  Data AnalystDetroit, 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 AnalystMcLean, VA   * Leveraged SQL, Python, and Qlik Sense to analyze 20TB of data and improved business decisions making. * Developed a comprehensive data visualization dashboard leveraging Qlik Sense to convey complicated data sets to the business Analysts for improving customer’s experience. * Established BI connector between MongoDB and Qlik Sense within Linux environment Generate reports. | (571) 354-9369  [wesleylau.wcl@gmail.com](mailto:wesleylau.wcl@gmail.com)  Fairfax, VA  **SKILLS**  **Technical Skill:**  • Data Analysis  • Data Cleansing  • Data Warehousing  • Database management  • Cloud Data Architecture  • Systems Integration  • Workflow Development  • Database Development  • Change Management  • Extract, Transform, Load (ETL)  • Data Visualization  • Data Modeling  **Tools and Software:**  • AWS (Athena, S3, Glue, Aurora, DynamoDB, RedShift)  • Python (Pandas, PySpark)  • Node.js  • Git (GitHub, GitLab)  • Oracle  • MySQL  • Postgres  • MongoDB  • Neo4j  • SQL Server  • Qlik Sense  • Tableau  • Talend  • Microsoft Visio  • Collibra  • Linux (Red Hat, CentOS)  **Certification**  • Qlik Sense Data Architect -v3.  • Google Advanced Data Analytics Specialization.  • Google Data Analytics Professional Certificate.  **EDUCATION**  Olivet Nazarene University, Bourbonnais, IL  Bachelor of Science in Engineering,  Electrical Engineering  **OTHER**  **Languages**: English, Chinese |