|  |  |
| --- | --- |
| Data Analyst/ Data Engineer  Wesley Lau | (571) 354-9369 | [wesleylau.wcl@gmail.com](mailto:wesleylau.wcl@gmail.com)  [LinkedIn Profile](https://www.linkedin.com/in/wesley-lau-34a8b374/)  Fairfax, VA |

# Education

Bachelor of Science in ENGINEERING – Drexel University – Bourbonnais, IL Jun 2016

Majors: Electrical Engineering

# Certification

Meta Databse engineer Jan 2025

Credential ID: 86UA4C6X1F1F

Google Advanced Data Analytics Specialization Mar 2024

Credential ID: 2FA6R2B257GJ

Qlik Sense Data Architect-v3 Sept 2017

Credential ID: QSDA0368v3

|  |  |  |
| --- | --- | --- |
| **Python**  PyTorch, pandas, dbt, SQLAlchemy, PySpark, boto3 | **Database Management**  Oracle, Postgres, SQL Server, MySQL | **Data Visualization**  Power BI, Tableau, Excel |
| **AWS**  S3, Athena, Glue, DynamoDB | **Data Modeling**  Erwin Data Modeler Oracle SQL Developer Data Modeler | **NoSQL**  MongoDB, Neo4j, JSON, XML |

# Technical Proficiencies

# Work Experience

Data Engineer **–** National Cancer Institute **–** Bethesda, MDDec 2022 - Jan 2024

* Analyzed incoming dataset from legacy system to defined and integrated additional data attributes and relationships into existing centralized data repository, expanding the centralize data warehouse.
* Constructed query to aggregate data from the centralized Neo4j database.
* Created data visualization with data from the Neo4j database to streamline data analysis processes in Jupyter notebook.
* Optimized the ETL pipeline by revamping the existing Python data loader, increasing overall data loading speed.

Data Analyst – Department of Homeland Security– Arlington, VA May 2021 - May 2022

* Collaborated with SME and stakeholders to define data requirements and translated them into actionable items, which directly contributed toward developing logical and physical models.
* Monitored data quality metrics and enforced validation rules, established a thorough governance and reducing migration errors.
* Engineered and executed a SQL query to aggregate data from centralize data repository, reducing report generation time by 60%.
* Built interactive Tableau dashboards to monitor and validate data quality during and post-migration, providing real-time insights into migration progress.

Data Analyst – DHS FEMA – Washington D.C. Aug 2018 – May 2021

* Developed data pipelines using PySpark to ingest and transform legacy data from Oracle and Postgres and load them into centralize AWS S3 data lake.
* Designed and implemented an AWS Athena query system to retrieve and process data from AWS S3 data lake, enabling faster insights for the data science team.
* Collaborated with stakeholders to create standardized data models and enforce consistency across relational databases (AWS Aurora, Oracle) and NoSQL databases (AWS S3, DynamoDB).
* Designed a Tableau dashboard to monitor the data migration from legacy systems to centralized AWS data lake, provided drill-down capabilities and KPIs, allowing program manager to assess the latest status of the migration.
* Built a layered data architecture with a normalized central Layer and a staging Area; tailored data marts for end users with different needs.

Data Analyst – Flagstar Bank – Detroit, MI Oct 2017 – Mar 2018

* Developed and deployed an efficient custom ETL framework that parsed complex XML structures along with JSON datasets into MongoDB; streamlined data processing workflows, saving approximately 30 hours per month.
* Created comprehensive ER diagrams to support business requirements and improve communication between stakeholders and the technical team.
* Provided infrastructure for user authentication and access token within Qlik.
* Designed 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.
* Engineered a robust Talend ETL pipeline to seamlessly transfer large datasets from an Oracle database into MongoDB; increased data accessibility for business analysts by ensuring integration was completed within two hours daily.