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| 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

Google Advanced Data Analytics Specialization Mar 2024

Credential ID: 2FA6R2B257GJ

Qlik Sense Data Architect-v3 Sept 2017

Credential ID: QSDA0368v3

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

# Technical Skills

# Work Experience

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

* Expanded existing data models to seamlessly integrate incoming Postgres data from legacy system.
* Validated data post-migration through comprehensive integrity checks and created scripts to resolve discrepancies, achieving 100% data accuracy.
* Optimized the Python data loader system by implementing multithreading and data caching techniques, increasing data loading speed and efficiency.
* Developed robust GraphQL APIs that enhanced accessibility to MongoDB datasets; improved user experience through faster data fetching times

Data Analyst – DHS HQ – 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 more robust logical and physical models
* Engineered and executed a complex SQL query to aggregate data from centralize data repository, reducing report generation time by 60%.
* Monitored critical data quality metrics and enforced robust validation rules, implementing a comprehensive data governance standard that reduced errors in data migration by 30% through rigorous discrepancy identification.
* Built interactive dashboards in Tableau to monitor and validate data quality during and post-migration, enhancing issue detection speed and ensuring data accuracy.

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

* Designed data pipelines using PySpark to ingest and transform legacy data from Oracle and Postgres and load them into centralize AWS S3 data lake.
* Developed and implemented a complex 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 stores (AWS S3, DynamoDB).
* Conducted in-depth data profiling and established rigorous quality checks, guaranteeing reliability for analytics workflows utilized by the data science team; enhanced accuracy metrics to 99% across machine learning models.

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.
* 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.

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.