

Luke Dorsett

Education

MASTER OF SCIENCE: DATA ANALYTICS

Major: Data Analytics
Western Governor's University (2023-2024)

BACHELOR OF SCIENCE: GEOGRAPHY

Major: Geographic Information Systems (GIS)/Data Science
Minor: Informatics
University of Washington (2019-2023)

Skills

LANGUAGES: Python (Pandas, Numpy, Django), SQL (PostgreSQL, MySQL), R, JavaScript (React.js, Node.js)

SOFTWARE/SERVICES: Power BI, Tableau, ArcGIS, QGIS, Excel, Airflow, MongoDB

SKILLS: ETL, Data Analysis, Statistical Analysis, Machine Learning (Sklearn/XGBoost), Database Management

CERTIFICATES:

- Data Analyst (Google)
- TensorFlow (Deeplearning.ai)
- Full Stack Software Developer (IBM)
- Data Engineer (IBM)

Work Experience

LIFEGUARD/SWIM INSTRUCTOR – Twin Lakes Swim and Country Club

2018 – 2023

- Taught children in groups of up to 10 in learning beginner to intermediate swimming techniques
- Head lifeguard (2021-2023), routinely managed two lifeguards and oversaw pool operations
- Balanced rigorous water safety protocols with positive patron interactions with dozens of customers daily

Project Experience

TIDY TUESDAY DATASET ANALYSES – Personal Projects

March 2024 - present

- Engineered **Python** scripts to **extract, transform, and analyze** 6 datasets from the Tidy Tuesday Github repo.
- Developed ≥ 2 comprehensive **Jupyter** notebooks for each dataset, detailing analytical processes.
- Designed dozens of concise visualizations using **Plotly**, **matplotlib**, and **seaborn** to illustrate key insights.
- Constructed interactive **Tableau** and **Power BI** dashboards to synthesize and present findings effectively for each dataset.

NFL PLAY-BY-PLAY ANALYSIS AND DASHBOARD – Personal Project

April 2024

- Engineered **data pipeline** to process and refine $\sim 300k$ NFL play observations.
- Architected an interactive **Streamlit** dashboard, enabling users to explore plays across hundreds of games.

FLIGHT TICKET PRICE PREDICTION – Capstone Project

April 2024

- Orchestrated data collection and cleaning processes for $\sim 300k$ flight ticket observations.
- Conducted rigorous statistical analysis, employing **Shapiro-Wilk** tests and **linear regression** techniques to eliminate hundreds of less significant features.
- Developed a **Random Forest Regressor** model using **Scikit-learn**, achieving a MAPE of $\sim 12\%$
- Generated over 8 visualizations with **matplotlib**, including **feature importance** and **partial dependence plots**.
- Delivered a compelling 12-minute oral presentation supported by a comprehensive PowerPoint deck.

WORLD DOMESTIC VIOLENCE VISUALIZATION – Personal Project

May 2023

- Designed an interactive **choropleth map** using **d3.js**, visualizing global data for over 100 nations.
- Created a color scheme to display each nation's HDI and domestic violence safety rating.