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Alden Felix

Education

Master of Science, Data Science   December 2023
The University of Texas at Dallas, Richardson, Tx   GPA: 3.91/4.0

Bachelor of Science, Economics   December 2022
The University of Texas at Dallas, Richardson, Tx   GPA: 3.82/4.0, Magna Cum Laude

Relevant Coursework

Data Visualization	Database Management	Natural Language Processing
Machine Learning	Applied Regression	Statistics, Calculus
Econometrics	Mathematical Economics	Upper-Level Economic Theory

Skills

Data Analysis: R (Tidyverse), Python (Pandas, NumPy), Microsoft Excel

Machine Learning: R, Python: Supervised/Unsupervised, Random Forest, Clustering, NLP

Regression Analysis: R, Python - OLS, GLM

Data Visualization: Tableau, R (ggplot2), Python (Matplotlib, Plotly, Altair), R Shiny, Markdown, R Quarto

Data Collection/Query: R, Python, SQL, PostgreSQL

Academic Projects - https://aldenfelix.github.io/

Natural Language Processing of Tweets to Explore Mental Health   August 2023 – December 2023
Designed as a method to survey the mental health of the public, revealing sources and intensity of stress/stressors
- Utilized dictionary/bag of words method to capture intensity of stress during the COVID-19 Pandemic
- Applied topic modeling to capture the most common stressors during the Pandemic
- Identified methods to work around issues with NLP on noisy datasets and data collection from unorganized sources like Twitter and other social media platforms

Predicting Interstate Affinity using Machine Learning/Database Building   January 2023 – May 2023
Designed to generalize conflict prediction and assist the study of state affinity communities & network analysis
- Built original database to compile relevant data that is spread across different sources
- Used Random Forests and Deep Learning to predict relationships between states

Effect of Road Classification on Alcohol Related Crash Severity   August 2022 – December 2022
Designed to research the causal relationship between types of roads and the severity of alcohol-related crashes
- Collected 27,000+ accidents in Collin County from Texas Department of Transportation
- Performed regression analysis using a logit model to answer hypothesis
- Built Shiny application for interactive exploratory data analysis and dashboard for presentation

Exploring Human Mobility using Twitter Data   August 2022 – December 2022
Designed to explore effectiveness of twitter data for human mobility studies
- Collected/scraped 1 million+ tweets using API and non-API methods
- Performed quantitative and qualitative analysis to explore effect of COVID-19 on mobility patterns