Lauren Bain

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EDUCATION

UNIVERSITY OF COLORADO BOULDER   **Boulder, CO**
Master of Data Science   **JULY 2024**
- **Relevant Coursework**: Statistics and Applications; Data Structures and Algorithms; Data Mining; Machine Learning; Text Mining; Big Data Architecture; Neural Networks; Business Process Analytics

TRINITY UNIVERSITY   **San Antonio, TX**
Bachelor of Science in Business Analytics and Technology   **SEPT 2016 - MAY 2020**
- **Achievements**: Data Science with R DataCamp Certification 2020; Outstanding First Year Design Project Award, Trinity University School of Engineering Science 2017
- **Relevant Coursework**: Machine Learning; Consulting in Business Analytics and Technology; Linear Algebra; Abstract Mathematics; Computer Science; Calculus I, II; Operations Management; Engineering Analysis and Design I, II; Financial Accounting; Information Systems; Managerial Accounting.

EXPERIENCE

LEWIS ENERGY GROUP   **San Antonio, TX**
Engineering Data Analyst   **JUNE 2019- NOV 2021**
- Streamlined production reports by creating automated dashboards for the engineering team. Tools used:
  o Spotfire Visualization Software
  o MS SQL Server
- Projects included: identify and quantify missing product with real time field data; built a system to monitor and alert for important leasing dates; create high level production reports for engineers and executives
- Performed updates to CygNet dashboards at the request of gas control and dispatch teams

PROJECTS

Celebrity Lookalike Application - StarMatch
- Team lead of a celebrity lookalike application, StarMatch, deployed on GCP
- StarMatch compares your face to thousands of celebrity images and finds the closest lookalike using Convolutional Neural Networks
- Application Demo: https://www.youtube.com/watch?v=ZIwHvxe5WIU
- Tools and methods:
  ○ Scripts in Python for image processing and output: OpenCV, VGG, and Tensorflow
  ○ Web Server: Node js Express
  ○ Front End: Swiper; JS; CSS
  ○ Docker, Google Cloud Services

Predicting Global Healthcare Costs
- Aggregated, cleaned, and formatted data from the World Health Organization on Health Care expense and non-communicable diseases
- Methods used: clustering, decision trees, support vector machines, naive bayes, knn, and neural networks
- Achieved accuracy up to 70% to predict level of healthcare costs globally

Product Recommendation System
- Built a product recommendation system for liquor stores based on Iowa liquor sales data
- Modeled data to find associated products and created an application that takes user input of a specific product and produces the top 10 recommendations of associated products based on sales

SKILLS

- Technical Skills: Python (Pandas, NumPy, Scikit-learn, Tensor Flow, seaborn), SQL, R, Tableau.
- Data Science Skills: Data Cleaning, Visualization, Predictive Modeling and Analytics, Data Management, Statistical Analysis, A/B testing, Technical Documentation, Programming, Feature Engineering, APIs, Google Cloud Services
- Machine Learning Methods: Linear Models (Linear Regression, Multiple Linear Regression, Logistic Regression, Ridge and Lasso), Supervised (Decision Trees, Random Forest, Naive Bayes, Support Vector Machines, Neural Networks), Unsupervised (K-means, K-modes, Hierarchical Clustering, Association Rule Mining, Latent Dirichlet Allocation)