S. Townsend

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EDUCATION

Brigham Young University-Idaho Rexburg, ID
Bachelors of Science: Data Science
Minor: Statistics

SKILLS

Technical Skills - Machine Learning, Big Data Programming, Linear Regression, Statistical Modeling, Data Wrangling & Visualization, Programming in Python, Data Science Programming, Data Intutition and Insight

Tools - *Proficient:* Python, R, VS Code, Positron *Intermediate:* Spark, SQL, Git, Docker, Databricks, Azure Studio, and Git for Version Control

Libraries - *Python:* Pandas, Polars, NumPy, Seaborn, Matplotlib, Plotly, TensorFlow, Keras, PyTorch, Scikit-learn *R:* tidyr, dplyr, ggplotly, lubridate, stringr, shiny, ggplot2

Web Development: Familiar with HTML, CSS, JavaScript, and C# for web development.

Data Visualization: Expertise in Tableau and Power BI for interactive dashboards and insights communication.

EXPERIENCE

Marcus Harris Foundation December 2024-Present
Data Entry Analyst, Intern Rexburg, ID

- Harvested data from the IRS tax-exempt organization database, gathering contact information of nonprofit organizations for marketing outreach campaigns.
- Analyzed email marketing campaign data, identifying trends and areas for improvement to enhance user engagement.
- Conducted data-driven analysis to optimize marketing efforts, providing actionable insights to improve campaign performance.

Brigham Young University - Idaho January 2025-Present
Financial and Cost Data Analyst Rexburg, ID

- Financial & Cost Data Analyst – Conducted cost analysis and financial forecasting for AI tutor implementation, identifying a cost-saving opportunity by optimizing TA and AI model usage.
- Data-Driven Decision Making – Provided financial insights and recommendations to support university administration in adopting AI-driven academic support while ensuring FERPA compliance and institutional alignment.

SELECTED PROJECTS

Streaming Services Data Analysis January 2025-Present

- Analyzed Netflix, Hulu, Disney+, and Amazon content libraries to uncover trends in movie durations, genres, and ratings using Polars and Pandas.
- Visualized insights with Seaborn, Matplotlib, and Plotly, including genre popularity, rating distributions, and country-wise content production.
- Built interactive dashboards and statistical summaries to explore streaming service content trends and inform data-driven decisions.

Image Captioning Tool for Visually Impaired Users December 2024-Present

- Developed a deep learning model to generate descriptive captions for images, aiding visually impaired individuals and automating social media captioning.
- Implemented a Convolutional Neural Network (CNN) for image feature extraction (VGG16) and a sequence model (LSTM/Transformer) for caption generation.
- Visualized model attention areas with heatmaps and presented insights through data visualizations.

Criminal Incident Data Analysis November 2024-December 2024

- Developed interactive visualizations in **Python** (Matplotlib, Plotly) to highlight trends in the demographics of offenders and victims.
- Applied **data wrangling** techniques to identify patterns and trends, offering actionable insights into public safety strategies.
- Analyzed offender-victim relationships to uncover societal trends influencing crime rates.