Elijah Taber

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EDUCATION

BSc in Data Science with a Minor in Computer Information Systems   **Aug 2023 – May 2025**
Bellevue University
- Member of the Dean's List and Omega Nu Lambda Honor Society.

BSc in Physics with a Minor in Geology   **Jan 2018 – Dec 2021**
Portland State University
- Member of the Tau Sigma Honor Society.

TECHNICAL SKILLS

Languages | Python, SQL, R, HTML/CSS, PowerShell, Bash
Tools | Git, Docker, VS Code, Jupyter, Power BI, Tableau, Excel
Databases | PostgreSQL, SQLite, MySQL, MongoDB, DynamoDB (AWS)
Libraries/Frameworks | Pandas, NumPy, PySpark, TensorFlow, PyTorch, Hugging Face, Scikit-learn, NLTK, spaCy, Matplotlib, Flask, Streamlit, Async, Multiprocessing, RegEx, Beautiful Soup, Requests
AI Model Architectures | Neural Network (CNN, RNN, FNN), BiLSTM, Transformer, K-Means Clustering, KNN, Naïve Bayes, XGBoost, Random Forest, Isolation Forest, ARIMA, Logistic Regression, Linear Regression

PROJECTS

RoBi | *Transformer, BiLSTM, PyTorch, SQLite, Pandas*
- Developed a hybrid sentiment analysis network using RoBERTa and BiLSTM. The architecture consisted of a novel sliding window approach to bypass max sequence lengths of modern transformers. Essentially allowing the BiLSTM to learn from an infinite number of tokens using RoBERTa's embedding matrix.
- A Bayesian Optimization algorithm was developed as a wrapper for RoBi's architecture, acting as a hyperparameter tuner. This algorithm utilized a Matérn kernel for Gaussian Regression to greatly improve RoBi's accuracy by leveraging probability to search a hyperparameter space based on prior trial results.

AtmoSeer: [Website](#) | *Streamlit, BiLSTM, Requests, PostgreSQL, Pandas*
- Constructed an extremely comprehensive full-stack data science pipeline to predict and display future atmospheric gas emissions using a time series analysis model on a fully hosted website built from scratch.
- Millions of data points were scraped from NOAA GML and NASA MODIS, then cleaned, transformed, and loaded into a PostgreSQL database. This data was used to train a time series analysis model using Bayesian Optimization for hyperparameter tuning. Finally, a frontend website was deployed to forecast emissions.

Tackle Opportunity Window: [Submission](#) | *FNN, TensorFlow, Pandas, Plotly Animations*
- Designed a completely novel metric, along with a feed-forward neural network and Plotly animation, that quantified the probability of a tackle occurring on a specific frame based on orientation and proximity.
- Received an honorable mention in the 2024 "Big Data Bowl", hosted by the NFL, based on the quality of my model, presentation, and statistic metric. The notebook submission received more upvotes than 95% of the other competitors, consisting of hundreds of professional data scientists around the world.

MILITARY

Psychological Operations Specialist (37F)   **Nov 2014 – Nov 2023**
U.S.A.R Special Operations Command
- Received Secret Security Clearance.
- Promoted multiple times to a leadership position that required important, split-second decisions.
- Trained on how to collect and analyze information on a target audience to influence their behaviors.