# Taylor Bosier

**Data Science Professional**

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## Summary

Data professional with 6 years of experience in quantitative modeling, time series analysis, and machine learning, seeking to leverage Python programming and data-driven forecasting techniques in natural gas trading and market analysis. Proven ability to develop predictive models, automate data pipelines, and extract actionable insights from large, complex datasets. Skilled in integrating external data sources to support strategic decision-making. Currently pursuing a transition into the energy sector, with a focus on trading and quantitative analysis in natural gas markets.

## Professional Experience

**Lead Data Scientist** *Aug 2024 – Present*
**Stryker (Remote)**

- Developed insights into our customer-base using dimension reduction and clustering techniques
- Researched and developed a product recommendation model to improve product breadth for customers
- Developed several NodeJS applications with generative AI support to create internal tools and analysis
- Created a Product-Volume mix model to help drive margin improvements
- Led technical mentorship, guiding a senior data scientist and intern through machine learning projects
- Led a technical learning group to learn and practice machine learning techniques

**Data Scientist II** *Sept 2021 – Aug 2024*
**Knight-Swift Transportation, Phoenix, AZ**

- Promoted to Data Scientist II in Sept 2023.
- Developed ML and optimization models to optimize pricing strategies based on historical data and customer behavior, leading to higher price acceptance rates.
- Designed an early-warning detection model for driver safety, identifying high-risk drivers
- Presented a seminar on Bayesian Inference for cross-functional leadership teams
- Leveraged Bayesian inference for A/B testing and hypothesis validation, showing that without a certain technology, driver accidents are 30% more likely
- Optimized a driver retention model, yielding a 20% increase in F1-score
- Reengineered and enhanced a scheduling optimization model, boosting planned drivers from 20% to 85%
- Performed frequency-severity modeling for risk assessment in insurance purchasing

**Business Analyst** *June 2019 – Sept 2021*
**Chain Link Services**

- Determined optimal warehouse locations via k-means clustering and statistical analysis, reducing inventory costs and stockouts.
- Employed a Facebook Prophet model to forecast inventory demand, lowering holding costs and space requirements.
- Improved warehouse pick speeds by restructuring layout with an apriori model and implementing aisle-traveling heuristics.
- Deployed a Safety Stock algorithm (Z-score $\times$ std. of lead time $\times$ avg. demand) to set offsite warehouse inventory levels, cutting physical space and purchase costs.

## Technical Skills and Competencies

- **Python**: PyMC, scikit-learn, PyTorch, XGBoost, PySpark
- **Optimization Solver**: Gurobi
- **Simulation**: ARENA, SimPy
- **SQL**: Databricks, Microsoft SQL Server, DB2, Hadoop, Elasticsearch
- **Cloud**: Databricks, Azure ML Studio, Cloudera Data Science Workbench
- **Version Control**: Git

## Education

**Georgia Institute of Technology** *Online*
*Master of Science in Analytics (Est. May 2026)*

**New Mexico State University** *Las Cruces, NM*
*Master of Science in Mathematics (May 2018)*

**New Mexico State University** *Las Cruces, NM*
*Bachelor of Science in Mathematics (May 2016)*

## Hobbies and Interests

- Learning Deep Reinforcement Learning with my NVIDIA 5090 GPU
- My wife and I just moved here from Phoenix, AZ with our 3 cats
- I am a coffee snob (but free coffee is best coffee!)
- Excited to start going to some Astros games!