

Taylor Bosier

Data Science Professional

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Dynamic and results-driven Data Scientist with nearly 5 years of experience in logistics and transportation analytics. I have a proven track record in developing innovative, data-driven solutions that drive operational efficiency and cost savings. I have successfully implemented Bayesian Inference, advanced machine learning models, and optimization methods, significantly enhancing business decision-making and operational agility.

Professional Experience

Data Scientist II

Sept 2021 – Present

Knight-Swift Transportation

Phoenix, AZ

- Promoted to Data Scientist II Sept 2023
- Developed an early-warning detection model for driver safety, identifying 40+ drivers weekly in need of remediation, utilizing machine learning, python, and SQL. Deployed from Gitlab to Azure.
- Developed machine learning and optimization models to optimize pricing strategies based on historical data and customer behavior, resulting in improved price acceptance rates.
- Applied Bayesian inference for A/B testing and hypothesis testing to validate business strategies and enhance decision-making processes.
- Optimized a driver retention model, leading to a 20% increase in F1-score.
- Reengineered and enhanced a scheduling optimization model for driver planning, resulting in an increase from 20 to 85% total drivers planned in a terminal.
- Conducted frequency-severity modeling for risk assessment for insurance purchasing.

Business Analyst

June 2019 – September 2021

Chain Link Services

- Found optimal warehouse locations and number of required warehouses utilizing k-means clustering algorithms and various statistical analyses, reducing inventory costs and stockouts
- Reduced inventory space and holding costs by utilizing a Facebook Prophet model to predict inventory demand
- Increased warehouse pick speeds by utilizing an apriori model to re-structure warehouse layout and implemented Traveling Salesman model to pack pick orders together to speed up picks
- Utilized a Safety Stock ($Z\text{-score} * \text{sd of lead time} * \text{Average Demand}$) algorithm to set inventory levels required at offsite warehouse locations, reducing physical inventory space and lowering purchase cost

Technical Skills and Competencies

- Python – PyMC, scikit-learn, xgboost, catboost, Gurobi, SimPy, SciPy, Fitter
- Optimization – Gurobi, with some working knowledge of CPLEX.
- SQL – Microsoft SQL Server, DB2, Hadoop, Elasticsearch
- Cloud – Azure Machine Learning, Azure DataBricks, Cloudera Data Science Workbench
- Data Visualization – Tableau, Matplotlib
- Version Control – Git

Education

Georgia Institute of Technology

Master of Science in Analytics – Computational

Online

May 2025

New Mexico State University

Master of Science in Mathematics

Las Cruces, NM

May 2018

New Mexico State University

Bachelor of Science in Mathematics

Las Cruces, NM

May 2016