Taylor Bosier

Data Science Professional
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I am a Data Scientist with nearly 5 years of experience in logistics and transportation analytics. I have experience developing data-driven solutions that drive operational efficiency and cost savings. I have successfully implemented Bayesian Inference, machine learning models, and optimization methods, 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 machine learning and optimization models to optimize pricing strategies based on historical data and customer behavior, resulting in improved price acceptance rates
- Developed an early-warning detection model for driver safety, identifying high-risk drivers weekly in need of remediation
- 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 – Sept 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 a-priori model to re-structure warehouse layout and implemented aisle traveling heuristic to pack pick orders together to speed up picks
- Utilized a Safety Stock (Z-score* sd of lead time * 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, SimPy, SciPy, Fitter
- Optimization Solver – Gurobi
- SQL – Microsoft SQL Server, DB2, Hadoop, Elasticsearch
- Cloud – Azure Machine Learning, some Azure DataBricks, Cloudera Data Science Workbench
- Data Visualization – Tableau, Matplotlib

Education

Georgia Institute of Technology Online
Master of Science in Analytics – Computational Est: May 2025

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*