

CHRISTOPHER ROBERT WHITE

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Experience

Lead Data Scientist

Jul 2023 - Present

Nike - Remote

- Led technical deployment of a production **900K-variable weekly Mixed Integer Program (MIP) containerization** model (gurobipy, Databricks) codifying **21 loading rules** with rejection-driven feedback; scaled from pilot to **5 origin ports** serving **17.5% of global inbound volume**, lifting **consolidator-bypass from 11% baseline to 45%+** and saving **\$2.8M annually**.
- Led ablation experimentation across **22 EMEA loading rules** to isolate consolidator-bypass degradation on containerization rollout; identified ETA-zoning rules as dominant uplift lever (**5-7pp**), driving **\$236K** in cost savings via post-launch parameter retuning.
- Owned end-to-end a **413K-variable inventory allocation MIP** (supply-demand matching, gurobipy on Databricks Apps), from stakeholder scoping through React/FastAPI front-end, clearing Nike marketplace demand across **23 DCs**; delivered **157K-unit** cross-territory divert (**\$2.5M**) with **\$10M+ annualized** avoided-cancellation savings for **27 analysts**.
- Owned a **3-person consulting squad** end-to-end; mentored **8 data scientists**, conducted **20+ hiring interviews**, and led **30+ onboarding sessions**.
- Presented **10+ times** at the enterprise Data Science Demo Series, sharing machine learning, experimentation, and supply chain optimization work with cross-functional audiences of data scientists, engineers, and business stakeholders.

Senior Data Scientist

Jan 2022 - Jul 2023

Nike - Remote

- Architected a supply chain network Digital Twin (**60K-variable MIP** in Gurobi/OR-Tools) replacing Supply Chain Guru X, optimizing cost, lead time, risk, and emissions across **1.6B units** via Pareto frontier, sensitivity, and scenario analysis; delivered **\$202M EBIT**, **\$1M annual license savings**, and **100M kg CO₂e** reduction in year one; shipped on AWS SageMaker via Jenkins CI/CD.
- Trained CatBoost models on **180K Snowflake records** for landed-cost pricing (FOB + duty) at SKU-factory granularity: **4.05% MAPE on FOB** (**56%** below static weighted-average baseline), **19%** error reduction on duty; monthly Airflow retrain, integrated into sourcing optimizers, served via Streamlit to **150+ designers**.
- Built **12 medallion-architecture ETL pipelines** (Python, SQL) on AWS SageMaker and Databricks across **5 products**, automating ingestion from Snowflake, Box, and Delta Tables; containerized in Docker and hardened with PyTest unit tests.

Senior Data Scientist

Apr 2020 - Dec 2021

IBM - Washington, DC

- Built **2-stage MILP** (Python/PuLP) combining multi-commodity network flow and bin-packing (materiel compatibility) for DLA munitions sourcing/distribution on Palantir Foundry with PySpark; **cut planning from 1 week to 8 minutes** across **~4K SKUs**.
- Engineered LSTM encoder-decoder (TensorFlow) forecasting 12-month backorders across **33K SKUs**, using tslearn for segmentation and cluster-guided oversampling; benchmarked **6 architectures** via walk-forward CV (**0.89 F1**, **0.94 recall**); published DLA technical report.
- Developed MLP/RNN classifiers (scikit-learn, TensorFlow) labeling Primary Failure Indicators from maintenance logs across **30+ failure modes** at **85% accuracy**; cut reliability curve development from **6 months to 4 weeks**; adopted by the Air Force across **5 engine programs**.
- Developed bidirectional LSTM classifiers (TensorFlow, GloVe embeddings) fusing free-text and structured fields to classify security clearance applications at **0.91 recall** and **0.89 F1** with SMOTE; SHAP force plots drove Army adoption.

Senior Technical Supply Chain Analyst

Feb 2017 - Aug 2018

Accenture - Arlington, VA

- Enhanced DLA aviation SKU recommendations by building a hybrid retrieval pipeline (SAS, SQL) combining rule-based clustering (vendor, socioeconomic sourcing) with product keyword cosine similarity to extend candidate SKU sets; outputs pushed to a dashboard used by **300+ analysts**, informing **\$1.2B+** contracting decisions.
- Led development of a supply chain network dashboard in Qlik Sense for DLA distribution center performance monitoring; engineered supporting Python (Pandas, NumPy) and PostgreSQL data pipelines.

Program and Project Management Analyst

Mar 2016 - Feb 2017

Accenture - Arlington, VA

- Supported HealthCare.gov modernization at CMS: monitored SDLC phase milestones, compiled weekly risk reports, tracked contract financials, and maintained vendor resource compliance across dev, QA, and infrastructure workstreams.

Education

M.S. Computer Science

Aug 2018 - Dec 2019

George Washington University - Washington, DC

B.S. Mechanical Engineering

Aug 2011 - May 2015

Lafayette College - Easton, PA

Publication

White, C.R., Tatko, R.W., Williams, G.M., Myers, R.K. (2021). "Backorder Prediction." Technical Report, IBM Corporation, Defense Logistics Agency. <https://apps.dtic.mil/sti/citations/AD1141471>