

SKILLS

Core Strength	End-to-End ML Modeling, Data Mining, Experimental Design, Causal Inference, Statistics, Storytelling
Programming	Python: Scikit-learn, PyTorch, PySpark, SciPy, Statsmodels, Pandas, NumPy, Matplotlib, Django
Other	R: Tidyverse, Tidymodels, Shiny, Quarto, Plumber
	SQL, Hadoop, Tableau, PowerBI, Alteryx, Databricks, Azure, Git, Hug. Face, Llama, Stable Diffusion, Korean

EXPERIENCE

Humana

Remote, PA

Senior Data Scientist

Sep. 2024 – Present

- Engineered an **ensemble regression** model to forecast the Health Equity Index, achieving a MAE of 2.0 on the 0-100 scale. The model **automates** feature collection, training, fine-tuning, and monitoring across 26 sub models, and is a critical component of the Star Rating ecosystem, with potential impacts valued in the **hundreds of millions of dollars**.

Senior Business Intelligence Engineer

Jun. 2023 – Sep. 2024

- Developed and **deployed** a **LGBM classifier** model to predict balance and fall risks among 5M Medicare members, **doubling** the accuracy of identifying at-risk individuals compared to the natural distribution. Contributed to annual revenue increase of **\$2M**.
- Built **financial valuations** for intervention campaigns using causal inference techniques like RCTs, Matching, DiD, and RDD, preventing over **\$100K** in annual costs and contributing to an annual revenue increase of over **\$5M**.
- Consulted** business partners on **study designs**, including **A/B testing**, refining study parameters and sampling methodologies to ensure robust and causally interpretable results. Successfully led over **5** study campaigns from concept through execution.

The Hershey Company

Hershey, PA

Lead Business Intelligence Analyst

Dec. 2022 – Jun. 2023

- Optimized a **Random Forest model** through feature engineering and hyperparameter tuning, achieving an AUC score of 0.88 on the test set, predicting employee turnover to provide proactive targeting for retention interventions.
- Developed a **real-time REST API**, integrating **Survival Analysis, PCA, and Factor Analysis** to provide advanced recruitment KPI monitoring and process optimization.

Senior Analyst, HR Reporting (Senior Data Analyst)

Mar. 2022 – Dec. 2022

- Conducted Adverse Impact Analysis, applying statistical testing techniques like **Chi-square, t-test, and ANOVA** to reveal complex relationships within diversity groups and provide strategic guidance.
- Built **financial valuations** on tuition reimbursement policy, demonstrating its positive impact on performance, retention, and management perception. Resulted in annual allocation of over **\$6M** towards the program.

Analyst, HR Reporting (Data Analyst)

Nov. 2018 – Mar. 2022

- Developed** and **automated** 7+ end-to-end **dashboards** and **reports**, streamlining the monitoring of People Analytics KPIs. This initiative replaced third-party tools, resulting in a direct cost savings of over **\$200K** annually.
- Optimized **data models** and **ETL pipelines**, resulting in **40 hours** per month reduction in data prep time for users.

EDUCATION

Master of Applied Data Science	University of Michigan – Ann Arbor, MI	Apr. 2026 (Expected)
Bachelor of Business Administration	University of North Texas – Denton, TX	Aug. 2015

PROJECTS

Algorithmic Stock Trading using LSTM Model in PyTorch	May 2024
Text to SQL Transformer Model in PyTorch	May 2023
Using ML to Identify Risk Factors and Predict Fatal Outcomes in Protests	November 2022