

SKILLS	
Core Strength	End-to-End Modeling, Data Mining, Experimental Design, Causal Inference, Linear Algebra, Statistics
Programming	Python: Scikit-learn, PyTorch, PySpark, SciPy, Pandas, NumPy, Matplotlib, Django
	R: Tidyverse, Tidymodels, Shiny, Quarto, Plumber
Other	SQL, Hadoop, CSS, Tableau, PowerBI, Alteryx, Databricks, Azure, GCP, Git, Bilingual English and Korean

EXPERIENCE

Senior Business Intelligence Engineer	Jun. 2023 – Present
Humana	Remote, US
<ul style="list-style-type: none"><li>Developed and Deployed a LightGBM Classifier model using Sklearn, PySpark, and Azure DevOps to predict balance and fall risks among 5 Million Medicare members, achieving a testing F1 score of 0.75.</li><li>Developed a Ridge Regression model using Sklearn to forecast Health Equity Index Scores, achieving testing R Squared of 0.85.</li><li>Built financial valuations on intervention campaigns to support the business decision making process, using causal inference techniques like Matching (Coarsened Exact Matching, Propensity Score Matching), Regression (Diff-in-Diff, Regression Discontinuity Design, Structural Equation Modeling), and Text Mining (Topic Modeling, Text Classification).</li><li>Consulted business partners on experimental designs, helping to refine study parameters and sampling methodologies to ensure robust and causally interpretable results. Managed 5+ study campaigns.</li></ul>	

Lead Business Intelligence Analyst	Dec. 2022 – Jun. 2023
The Hershey Company	Hershey, PA
<ul style="list-style-type: none"><li>Optimized a Random Forest model with Python SkLearn through feature engineering and hyperparameter tuning, achieving a testing AUC score of 0.88, predicting employee turnover to provide proactive targeting for retention interventions.</li><li>Developed a real-time REST API with Python Django, integrating Survival Analysis, PCA, and Factor Analysis to provide non-technical stakeholders with standardized talent acquisition KPIs and models.</li></ul>	

Senior Analyst, HR Reporting (Senior Data Analyst)	Mar. 2022 – Dec. 2022
The Hershey Company	Hershey, PA
<ul style="list-style-type: none"><li>Conducted Adverse Impact Analysis using R, applying statistical testing techniques like Chi-square, t-test, and ANOVA to reveal complex relationships within diversity groups and provide strategic guidance.</li><li>Built financial valuations on tuition reimbursement policy in R, demonstrating its positive impact on performance, retention, and management perception. Resulted in the allocation of over \$6M towards the program.</li></ul>	

Analyst, HR Reporting (Data Analyst)	Nov. 2018 – Mar. 2022
The Hershey Company	Hershey, PA
<ul style="list-style-type: none"><li>Developed and automated 7+ end-to-end dashboards and apps using R Shiny, Tableau, and SQL, enabling continuous monitoring of People Analytics KPIs, leading to direct cost reduction of over \$100K/year.</li><li>Automated periodic internal and external reports and surveys using R Markdown, reducing the overhead hours spend by 90%. Contributed to earning a Great Place to Work recognition and 1st place in DiversityInc Top 50.</li><li>Optimized data models and ETL pipelines in SQL Server, resulting in 40 hours/month reduction in data prep time for users.</li></ul>	

EDUCATION

Master of Applied Data Science	University of Michigan – Ann Arbor, MI	Dec. 2025 (Expected)
Bachelor of Business Administration	University of North Texas – Denton, TX	Aug. 2015

PROJECTS

<a href="#">Algorithmic Stock Trading using LSTM Model in PyTorch</a>	May 2024
<a href="#">Text to SQL Transformer Model in PyTorch</a>	May 2023
<a href="#">Using ML to Identify Risk Factors and Predict Fatal Outcomes in Protests</a>	November 2022