Alex Lee
Senior Data Scientist

United States 📍 [LinkedIn](#) in
(832) 795-6031 📱 [Website](#) 📇
alexllee@umich.edu ✉ [Github](#) ◯

SKILLS

Core Strength	End-to-End ML Modeling, Data Mining, Experimental Design, Causal Inference, Statistics, Data Storytelling
Programming	**Python**: Scikit-learn, PyTorch, PySpark, SciPy, Statsmodels, Langchain, Django
	R: Tidyverse, Tidymodels, Shiny, Quarto, Plumber
Others	SQL, Hadoop, Tableau, PowerBI, Alteryx, Databricks, Azure, Git, Hugging Face, NLP, Korean

EXPERIENCE

Humana — Remote, MD

Senior Data Scientist *Sep. 2024 – Present*

- Engineered an **ensemble forecasting model framework** to predict STAR healthcare quality metrics, optimizing resource allocation and intervention planning, resulting in **$100M+ in revenue gains**.
- **Built a Monte Carlo–driven regression model** to project Health Outcomes Survey results, enabling precise targeting of interventions and delivering **$4M+ in revenue impact**.
- Implemented **CI/CD process** across 26+ sub-models, cutting **deployment time** and enhancing **model governance**.

Senior Business Intelligence Engineer *Jun. 2023 – Sep. 2024*

- **Deployed an LGBM-based fall-risk prediction model** for 5M Medicare members, doubling the precision of at-risk member identification and driving an annual **$2M revenue lift**.
- **Applied causal inference techniques** (RCTs, matching, Difference-in-Differences) and text mining to evaluate intervention campaigns, yielding **$100K+ annual cost savings** and **$5M+ in additional revenue**.
- **Led cross-functional study design consultations**, refining experiment parameters, sampling strategies, and success metrics; successfully executed **7+ high-impact study campaigns** from concept to deployment.

The Hershey Company — Hershey, PA

Lead Business Intelligence Analyst *Dec. 2022 – Jun. 2023*

- **Optimized a Random Forest classifier** for predicting employee turnover, enabling proactive retention strategies for 100+ high-value employees and strengthening organizational stability.
- **Built and deployed a real-time REST API** integrating Survival Analysis, PCA, and Factor Analysis to monitor talent acquisition KPIs, streamline recruitment processes, and improve hiring success rates.

Senior Analyst, HR Reporting (Senior Data Analyst) *Mar. 2022 – Dec. 2022*

- **Conducted Adverse Impact Analysis** using statistical testing (Chi-square, t-tests, ANOVA) to uncover diversity-related patterns, informing data-driven recommendations that improved team formation strategies.
- **Developed ROI models** for the tuition reimbursement program, quantifying its positive effect on employee performance and retention, securing **$6M+ in annual funding** for the initiative.

Analyst, HR Reporting (Data Analyst) *Nov. 2018 – Mar. 2022*

- **Designed and automated 7+ interactive dashboards** to track People Analytics KPIs, replacing third-party tools and saving **$200K+ annually**.
- **Optimized ETL pipelines and data models**, reducing data preparation time by **40 hours per month**.

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*

PROJECT HIGHLIGHTS

[Algorithmic Stock Trading using LSTM Model in PyTorch](#)	*May 2024*
[Using ML to Identify Risk Factors and Predict Fatal Outcomes in Protests](#)	*November 2022*