# Alex Krawza

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*Data Science major at Michigan Technological University with hands-on experience in **machine learning, NLP, and predictive modeling**. Proven leader seeking a **Data Science or Machine Learning internship for Summer 2026** to apply advanced analytics and modeling skills.*

## EDUCATION

**Michigan Technological University**
**BS Data Science,** Statistics Minor, 4.0 GPA, Dean's List — Expected April 2027

## SKILLS

Python, Java, Linux, R, SQL, Git, Excel, MS Office
Problem Solving, Leadership, Curiosity, Adaptibility

## PROJECT EXPERIENCE

**Michigan Tech IT Oxygen Enterprise with DCSA – Team Lead** — January 2025 – Present

Collaborating with the **Defense Counterintelligence and Security Agency** (DCSA) to develop tools for automating document analysis using OCR and NLP.

- Lead a 4-member team, coordinating deliverables and maintaining alignment with project sponsors through weekly check-ins
- Engineered **Transformer-based NLP** pipelines in Python (Hugging Face) achieving 98% entity extraction accuracy, exceeding the 90% target
- Tested Optical Character Recognition **(OCR)** to ensure 95% accuracy
- Researched NLP and evaluated NLP methods with an emphasis on modularity and scalability

**Predictive Modeling Project** *(In Progress)* — August 2025 – Present

Developing predictive models in R to analyze and estimate student success metrics.

- Actively researching and prototyping models including K-Nearest Neighbors **(KNN)**, Multivariate Regression Spline **(MARS)**, and **Linear Regression**
- Designing an evaluation framework leveraging metrics such as **RMSE** and **$R^2$** to compare model performance
- Collaborating with a partner to optimize feature engineering and hyperparameter tuning for improved predictive accuracy
- Project outcomes expected by Dec 2025, informing educators about what helps students succeed

**Data Exploration Project** — Jan 2025 – April 2025

Performed exploratory data analysis in **R** and **SAS** to investigate Michigan gas price trends using census and geographic data.

- Discovered regional price patterns across Michigan counties by correlating census demographics with fuel cost data
- Generated visualizations to highlight key trends and support hypothesis-driven insights
- Presented findings to peers, demonstrating proficiency in statistical analysis and data storytelling

## LEADERSHIP & INVOLVEMENT

**Team Lead**, IT Oxygen Enterprise — Sep 2025 – Present
**Assistant Captain**, Michigan Tech Ultimate Frisbee Team — April 2025 – Present

## WORK HISTORY

Golf Course Maintenance, Cleary Lake Golf Course, Prior Lake, Minnesota — Summers 2024 & 2025
Assistant Teacher, Tech Academy, Minneapolis, Minnesota — June 2023– Sept 2023
Assembler, Ironwood Electronics, Eagan, Minnesota — June 2022- Sept 2022