JACOB MONDORA

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EDUCATION

Northwestern University Evanston, IL | Sep 2023 - June 2026

- B.S. **Computer Engineering**, *Minor in* **Machine Learning and Data Science**
- **Relevant Coursework**: Computer Programming, Computer Engineering, Electrical Engineering, Data Structures & Algorithms, Machine Learning & AI, Linear Algebra
- **Involvement & Leadership**: McCormick Student Advisory Board (MSAB), Northwestern Track Club

Case Western Reserve University Cleveland, OH | Aug 2022 - May 2023

- **Relevant Coursework**: Programming in Java
- **Involvement & Leadership:** Emerging Leaders Program (ELP), Civic Engagement Scholars Program, Residence Hall Association (RHA), First Year Polymer Research

SKILLS

- **Technical Skills**: Java, Python, MATLAB, Data Structures & Algorithms, Applied Machine Learning, Building Information Modeling (BIM), Revit, JIRA, Generative AI Fundamentals, Grafana, Bitbucket
- **Interpersonal Skills**: Problem-solving, Adaptability, Organizational skills, Collaboration, Detail-oriented, Quantitative Analysis

RELEVANT WORK EXPERIENCE

Quantinuum, *Data Visualization Engineering Intern* Broomfield, CO | June 2024 - Sep 2024

- Developed a machine learning-based image processing tool to enhance the alignment precision of laser beam images in laboratory settings.
- Conducted in-depth data analysis and machine learning projects on multiple metrics from quantum computing systems to optimize performance and accuracy.
- Engaged in advanced machine learning research, developing innovative approaches to support Quantinuum's quantum computing and data visualization efforts.

Carmel Software, *Project Researcher* Virtual Internship | May 2023 - Sep 2023

- Utilized industry-standard Building Information Modeling **(BIM)** software, such as **Revit**, to develop detailed structural models for fire-safety analysis
- Applied fire-safety software, including **FDS, Pyrosim**, and **Pathfinder**, to execute simulations and conduct comprehensive analyses to enhance fire-safety measures.

OTHER EXPERIENCE

Data Science and Machine Learning: Making Data-Driven Decisions (MIT IDSS) Summer 2023

- Practiced and learned foundational data science skills through 30+ hours of recorded lectures, numerous assessments, mentored sessions with field experts, **case studies**, and **hands-on projects**
- Acquired an in-depth understanding of Python, Statistics, Unstructured/Structured Data, Regression & Classification Algorithms, Deep Learning, Recommendation Systems, Networking & Graphical Models, ChatGPT & Generative AI

Amazon Recommendation System, *(MIT IDSS)*

- Leveraged dataset to build Rank-based, Similarity-based, and Matrix Factorization-based recommendation systems in Python to recommend Amazon products to customers based on previous ratings
- Optimized model hyperparameters & compared performance using various metrics (RMSE, Precision, Recall, F score)

Predicting Potential Customers, *(MIT IDSS)*

- Implemented tuned and default decision tree and random forest ML algorithms in Python on a dataset of leads to identify those most likely to convert to full-time customers in the context of a fictional edtech company
- Tuned various hyperparameters to determine optimal values and feature importance for the given classification models