

Hektor Buqaj

38753 Warwickshire Dr • Sterling Heights, MI 48312
248-657-3600 • hektorb@umich.edu • www.linkedin.com/in/hektor-buqaj

EDUCATION

UNIVERSITY OF MICHIGAN

Bachelor of Data Science in Engineering

May 2027

- **GPA, Honors/Awards:** 3.51 | University Honors (Winter 2024), Dean's List (Winter 2024)

PROJECTS

University of Michigan

Ann Arbor, MI

Power Outage Analysis

April 2025

- Built a learning pipeline incorporating data preprocessing, feature standardization, and regularization techniques.
- Implemented grid search cross-validation to systematically identify optimal hyperparameters across multiple models.
- Applied statistical analysis to compare performance between LASSO and Ridge regression on real-world dataset.
- Created visualization suite to interpret model coefficients and feature importance rankings.

University of Michigan

Ann Arbor, MI

Business + Tech Winter 2024 Datathon

February – March 2024

- Partnered with a diverse team to develop a business model to address industry-responsible greenhouse gas emissions.
- Planned and finalized a product by leveraging teamwork and communication with diverse academic backgrounds.
- Gained practical experience in interpreting large datasets using Python with Matplotlib, NumPy, and Pandas.
- Strengthened problem-solving abilities by tackling real-world environmental issues in a competitive setting.

University of Michigan

Ann Arbor, MI

EECS 280: Euchre Game

March 2024

- Developed skills in Abstract Data Types in C++, Derived Classes, Inheritance, and Polymorphism.
- Designed custom “simple” (AI player) and human player classes in addition to card and pack ADTs with inheritance.
- Created basic player AI following game rules and make Euchre a possible single-player experience.

University of Michigan

Ann Arbor, MI

EECS 281: Pokémon

November – December 2024

- Implemented MST algorithms, analyzing efficiency of Prim's and Kruskal's for different scenarios.
- Designed and optimized a Branch and Bound algorithm for the Traveling Salesman Problem (TSP).
- Developed heuristics and bounding methods to achieve near-optimal solutions efficiently.
- Researched TSP heuristics and used graph visualization tools for debugging and analysis.

SKILLS

- Advanced C++ proficiency: Classes, Data Structures, Dynamic Resource Management, Derived Types, Linked lists.
- Intermediary Python proficiency: Matplotlib, NumPy, Pandas, Plotly, SciKit-Learn.

LEADERSHIP EXPERIENCE

University of Michigan

Ann Arbor, MI

Traditional Residential Advisor

August 2024 – December 2024

- Cultivated strong interpersonal skills by building and maintaining positive relationships with over 100 diverse residents, ensuring an inclusive and supportive community environment.
- Demonstrated effective conflict resolution abilities by mediating disputes among residents, facilitating communication, and developing mutually agreeable solutions to enhance communal living.
- Developed exceptional time management and organizational skills by balancing the demands of an academic schedule with the responsibilities of on-call duties, administrative tasks, and emergency response.
- Improved crisis management and problem-solving capabilities by swiftly addressing emergency situations, providing immediate support and resources, and communication effectively with campus safety and administration.