# Joseph Sun

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## Education

University of Michigan Ann Arbor, Michigan

Bachelor of Science

- Expected Graduation: May 2026
- Majors: Cognitive Science (Computational Track) | Minor: UI/UX design, Computer Science
- GPA: 3.75
- Relevant Coursework: Data Structures and Algorithms, Linear Algebra, Programming and Intro Data Structures, Discrete Mathematics, Machine Learning

#### **Projects**

## Hospital Mortality predictor (Python, SciKitLearn)

February 2025

- Developed a machine-learning model utilizing Python libraries such as NumPy, Pandas, sci-kit-learn, matplotlib, and YAML for configuration management
- Engineered a **feature extraction pipeline**, converting static and dynamic patient characteristics into **structured feature vectors** with comprehensive statistical representations of patients' features such as weighted means and standard deviation
- Designed and integrated k-fold cross-validation and hyperparameter tuning functions for both logistic regression and Kernel Ridge Regression to systematically optimize model performance across metrics such as AUROC and F1 score

# Save The Date Wedding Website (HTML/ CSS)

August 2024

- Created custom data structure to organize reusable JavaScript components within Vue Framework, streamlining the
  design and layout of icons, text, and images depicting the date and location of the wedding
- Implemented dynamic resizing of images and text based on screen size, ensuring consistent design across different devices
- Utilized Git to maintain version control with two other team members to create branches, review pull requests, and resolve
  merge conflicts to develop, test, and deploy safe new additions to the code

## Graph Search and Route Tracing Game (C++)

May 2024

 Applied depth-first search, breadth-first search, and backtracking algorithms to traverse the 3D map of obstacles to find the destination or determine when no solution was available

#### Euchre Simulation (C++)

January - February 2024

 Leveraged object-oriented design to create a model of Euchre, a popular card game, effectively simulating game mechanics through a simple and intuitive user interface

## Experience

# 180 Degrees Consulting

Ann Arbor

Project Manager

February 2024 - Current

- Conducted market research on demographics, competitors, and trends for a climate technology company on a team of
  five to provide recommendations on consistent advertising and target audience preferences to grow the user base by 27%
- Researched case studies, market trends, and geographical data to propose diversified educational offerings, website design changes, and outreach program expansion to increase the exposure and efficacy of a non-profit organization

Joe's Electronics Rochester Hills

Owner

July 2020 - August 2023

- Forged strategic partnerships to expand market reach and grow sales volume, cooperating with other individuals to provide access to electronics to previously untapped areas, resulting in generating over **5 figures in profit**
- Managed a team of 5 employees, providing clear direction and delegating tasks to each team member, considering their strengths and weaknesses. Helping maximize productivity in electronic acquisition and sales
- Provided personalized computer consulting services with a 100% client satisfaction rate by recommending parts and assisting in custom builds

Chipotle Rochester Hills

Crew

June 2023 - August 2023

- Provided excellent customer service by quickly processing orders, addressing concerns, and maintaining a clean environment, contributing to a positive dining experience and fostering customer loyalty
- Communicated proactively with team members about food levels and task assignments to ensure timely restocking, enhance team productivity, and increase order efficiency

#### Additional Information

- Programming Languages: C++, Java, Python, HTML, CSS, JavaScript
- Languages: English, Chinese (bilingual proficiency), German (limited proficiency)
- I am passionate about hiking and camping, fueling my goal to experience as much of the world as possible
- I love being active; I used to swim and now love to watch and play soccer, basketball, and football. Go Lions!
- Cooking has been my way of experiencing other cultures. From Korean to Jamaican cuisine, I have begun to appreciate the
  diversity of flavors within the world