

# Camden Wierengo

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## EDUCATION

### Grand Valley State University

Allendale, MI

*Bachelor of Science - Computer Science; Masters in Artificial Intelligence*

*Aug. 2024 – May 2028*

- **Relevant Coursework:** Data Structures and Algorithms, Object-Oriented Programming, Web Development, Database Systems, Software Engineering, Operating Systems, Artificial Intelligence, Machine Learning, Discrete Mathematics, Linear Algebra

## EXPERIENCE

### Computer Science Club – Active Member

*Collaborated with peers in weekly technical challenges, machine learning workshops, and peer-led software engineering projects.*

- Completed over 20 algorithmic coding challenges in club-sponsored LeetCode sessions.
- Worked in a team of 4 to build a machine learning project predicting student grades based on historical performance.
- Participated in technical interview prep meetups and led one club demo on Git and version control.

## PROJECTS

### Motive (Hack Dearborn – University of Michigan) *React, Flask, Supabase, Tailwind CSS, TypeScript, DaisyUI*

- Architected a microservices-based backend using Flask to handle real-time data retrieval and processing from Google Maps API, enhancing search speed by 30%.
- Implemented advanced geolocation algorithms to provide accurate and context-aware recommendations, allowing users to explore nearby attractions with 95% location accuracy.
- Developed chatbot logic using OpenAI API, designing conversation flows to suggest personalized travel itineraries while optimizing budget and group size.
- Engineered a full-stack application integrating React and TypeScript frontend with Flask backend and Supabase for real-time database management.

### Post Workout

*Angular, Express, Supabase, Tailwind CSS, TypeScript*

- Designed and implemented data models using Supabase to efficiently store and retrieve workout logs, reducing query execution time by 50%.
- Utilized Chart.js to visualize user progress with dynamic graphs, enhancing user engagement by 40%.
- Solved complex state management issues in Angular by leveraging RxJS observables, ensuring seamless user interactions and data consistency.
- Enhanced user experience with Toastify for notifications, maintaining consistent theme styling.

### SportsBet AI Bot

*React, Python, Supabase, OpenAI, BallDontLie API*

- Developed an AI-powered chatbot that suggests NBA bets using matchup history, player/team stats, and OpenAI natural language interpretation.
- Integrated real-time data pipelines from BallDontLie API and stored structured datasets in Supabase.
- Implemented natural query support to allow users to retrieve betting-relevant data without manual lookup.

### Algorithm Visualizer

*React, TypeScript, D3.js*

- Created interactive visualizations for sorting algorithms (MergeSort, QuickSort) and graph algorithms (BFS, DFS, Dijkstra's).
- Implemented animated transitions and comparison tables to show algorithm steps and performance metrics.
- Added code examples and visual explanations for each algorithm along with analysis of time and space complexity.

## TECHNICAL SKILLS

**Languages:** JavaScript (ES6+), TypeScript, Python, SQL (PostgreSQL), HTML/CSS

**Frameworks/Libraries:** React, Angular, Node.js, Express, Redux, Firebase, Supabase, Tailwind CSS, DaisyUI

**Tools/APIs:** Git, Docker, Google Maps API, OpenAI API, Chart.js, BallDontLie API, VS Code, Google Cloud

**Concepts:** Object-Oriented Programming (OOP), RESTful API Design, Agile Development