Hal Hoffmeyer

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EDUCATION

University of Michigan | B.S.E. Computer Science | GPA: 4.0 May 2027
Coursework: Foundations of Computer Science, Computer Organization, Data Structures and Algorithms, Discrete Math, Introduction to Probability, Applied Linear Algebra, Statistics and Data Analysis
Awards: William J. Branstrom Freshman Prize awarded to the top 5% of the Freshman class

EXPERIENCE

Zeta Pi Tech Fraternity | **Full-Stack Web Developer** June 2025 — Present

- Created ZProfile, a full-stack Next.js web app for 100+ users designed to streamline management and logistics.
- Implemented an attendance tracker and event creator integrated with Supabase using a custom dual list box component and React Hook Form.
- Built profile page allowing students to log course history by pulling course information from U-M API and writing custom multiselect component to store student course data into Supabase.
- Developed an interactive course directory by querying previously stored Supabase data and built logic for search, debounce, and filtering features using React hooks and PostgreSQL.
- Implemented a bug reporting system leveraging the GitHub REST API, automatically creating GitHub issues from user submissions to streamline bug tracking and improve response time.

VOID Tech | **Front-End Developer** September 2024 — Present

- Developed a companion web app for a documentary, using Next.js to showcase dynamic music and videos dashboards, NextAuth.js for secure user authentication, AWS S3 for video storage, and Vercel for database.
- Led developer meetings to establish a unified Git workflow amongst team members and merge back-end with front-end components.

Kumon | **Tutor** June 2023 — August 2024

- Provided online and in-person tutoring in math and English for K-12 students and graded homework.

PROJECTS

Minesweeper | *React, TypeScript, Tailwind* December 2024

- Developed a Minesweeper game, integrating game logic (recursive flood-fill algorithms, mine placement validation, adjacency calculations) while handling state management and dynamic grid rendering with React components and event listeners in TypeScript for seamless user experience.

Assembly Simulator | *Assembly, C* September 2025

- Developed a program in assembly that executes 16-bit integer multiplication using a custom algorithm, without the use of bit-shift and multiply instructions. Compiled and simulated with a separate C program.

LaTeX Generator | *React, TypeScript, Tailwind* January 2025

- Built an interactive matrix LaTeX code generator that allows users to input values and specify matrix types, modify matrix dimensions, and output respective code to simplify writing tedious LaTeX.

Snake Game | *Java* November 2024

- Developed a fully interactive Snake game in Java, featuring keyboard input handling, score history tracking, and difficulty level configuration.
- Engineered efficient game logic for object spawning, movement, and collision validation, ensuring objects never overlap with each other while dynamically adapting to the player's progress.

Pong Clock | *C, OpenGL, GLFW* December 2024

- Developed a tongue-in-cheek, self-playing Pong game in C that displays a seven-segment display of current time, ball and paddle movement, collision detection, and trajectory calculation while rendering with GLFW and OpenGL.

Languages: C/C++, JavaScript/TypeScript, HTML/CSS, Python, Java, R
Tools: React, Tailwind CSS, Next.js, PostgreSQL, Git, Supabase, Vercel, Makefile, Vim, VS Code, IntelliJ
Certifications: N3 Japanese Language Proficiency Test