Benjamin Heinen

ben-heinen.web.app | benbuis24@gmail.com

Education

University of Minnesota, Twin Cities — Minnesota
Bachelor of Science in Computer Science — *May 2026*

- GPA: 4.0/4.0
- Relevant Coursework: Algorithms and Data Structures, Programming in C, Programming Concepts, Computing and Problem Solving, Calculus 2

Skills

Languages: C, HTML/CSS, Java, JavaScript, Python, SwiftUI, TypeScript
Frameworks/Libraries: NodeJS, React, ChakraUI, NumPy, PyGame
Tools: Firebase/Firestore, Git, MySQL, Unix, Docker
Concepts: Data Structures, Machine Learning, Object-Oriented Design, Software Engineering, Web Development, UX

Experience

Full-Stack Developer — June 2024 - Present
APAS Extension — *Social Coding @ UMN*

- Developed a Chrome extension using JavaScript, HTML and CSS to enhance APAS
- Collaborated with students to identify and resolve performance issues, leading to a more efficient product
- Enhanced UX by rewriting front-end protocols, making the interface more intuitive and user-friendly
- Improved back-end functionality by implementing processes that met performance and security standards

Projects

Portfolio Website | *React, ChakraUI, Firebase/Firestore* — March 2024 - Present

- Engineered a highly responsive and visually appealing portfolio website utilizing React and Chakra UI, effectively highlighting professional achievements and project showcases.
- Leveraged Firebase to implement seamless real-time data synchronization and analytics.

Raycasting Engine | *Python, PyGame, NumPy* — March 2024

- Computed matrix transformations using NumPy and PyGame libraries to optimize the engine, improving computational efficiency and accuracy in rendering 3D scenes

Data Structures Repository | *Java* — Jan 2024 - June 2024

- Spearheaded the collaborative development of a comprehensive library containing essential data structures and examples with peers in a classroom setting
- Engineered optimized implementations of data structures to enhance performance and speed, resulting in improved efficiency