

MICHAEL BRENNAN

[Personal Website](#) | [LinkedIn](#) | [GitHub](#)

Education

Northeastern University, Boston, MA

Fall 2023 - Spring 2027

- Candidate for B.S in Computer Engineering and Computer Science
- Notable Courses: Fundamentals of Computer Science 1 & 2, Object-Oriented Design, Embedded Design

Fairview High School, Boulder, CO

Fall 2019 – Spring 2023

- Cum Laude, 3.6/4.0 GPA
 - FIRST Robotics team co-captain, Website team co-captain, National Honor Society member
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Experience

Software Engineer, Generate Product Development, [Link](#)

January 2024 - Present

- Worked on Student Activity Calendar, an club and event marketing and management platform for Northeastern.
- Developed API endpoints in Go and PostgreSQL for club and user management.
- Designed and implemented search solution using PostgreSQL full-text search and OpenAI Embeddings API for natural-language search of clubs and events.
- Implemented search and explore flows with React Native, Expo and TailwindCSS for users to discover clubs and events.

Programming Captain, FRC Team 2036

May 2022 - March 2023

- Designed driving, navigation, and mechanism control systems with Kotlin and WPILib for smooth control of competition robot.
- Implemented camera and path planning so our robot could execute tasks autonomously.
- Led a team of 5 members, did code & architecture reviews, taught new members programming & electrical skills, and worked with other captains to make sure goals were being met.

Co-Captain, Fairview High School Web Team

May 2022 - May 2023

- Built a dynamic bell schedule editor in React and Ruby on Rails so school administrators could change weekly schedules for special events or breaks.
 - Fixed bugs in Docker and Docker Compose setup for smooth developer experience.
 - Did code reviews, and taught new members web programming skills.
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Personal Projects

Oceanman, [Link](#)

- 3D graphics renderer built from scratch using WebGPU and Rust.
- Implemented physically-based rendering, image-based lighting, glTF scene loading, HDR textures & tone mapping, and FXAA.