MICHAEL BRENNAN
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E D U C A T I O N

Fairview High School, Boulder, Colorado   **Fall 2019 – Spring 2023**
- **Cum Laude,** 3.6/4.0 GPA
- FIRST Robotics team co-captain | Website team co-captain

Northeastern University, Boston, Massachusetts   **Fall 2023 - (Expected) Spring 2027**
- 3.8/4.0 GPA
- Candidate for B.S in Computer Science

L E A D E R S H I P

Programming Captain, FRC Team 2036   **May 2022 - March 2023**
- Authored or helped design driving & navigation, autonomous, camera, and mechanism control systems.
- Worked with robot electrical systems.
- 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**
- Worked on front-end features, and fixed bugs in Docker setup and development tooling.
- Did code reviews, and taught new members web programming skills.

W O R K   E X P E R I E N C E

Nana's Kitchen Team Member, Longmont, Colorado   **December 2022 - February 2023**
- Actively participated in the preparation and cooking of various baked goods, such as bread, pastries and cakes.
- Assisted with event setup, including arranging displays, preparing inventory, and organizing a ticketing & order system.

Qdoba Restaurant Team Member, Boulder, Colorado   **April 2021 - August 2021**
- Managed to serve high-quality food to customers during high-demand hours.
- Assured a clean, sanitary, well-stocked assembly line and front-of-house.
- Adept at using POS terminal and providing friendly service to customers.

P E R S O N A L   P R O J E C T S

Oceanman
- https://github.com/michael-brennan2005/oceanman
- 3D graphics renderer built from scratch using WebGPU and Rust
- Implemented physically-based rendering, image-based lighting, glTF scene loading, HDR textures & tonemapping, and FXAA.

dg6502
- https://github.com/michael-brennan2005/dg6502
- MOS6502 emulator written in Rust, can be used as a library for emulator projects, or as a standalone app for running 6502 programs.
- Implemented all 6502 legal and "illegal" instructions, has a command-line interface, configurable BCD support and jam/illegal support.

Saxon
- https://github.com/michael-brennan2005/saxon
- Command-line calculator written in F#, supports arithmetic and elementary functions (tan, sin, cos, sqrt, etc.), summations and products, numerical integration, and symbolic differentiation of simple polynomials.
- Implemented a recursive descent parser, tree-walk interpreter, and support for user defined functions and variables.