

Skills

- Experienced in JavaScript, HTML, CSS, Rust, Python, PHP, and Unix tools
- Able to create fully functioning products independently

Achievements and highlighted projects

Present **Open Source**, *GitHub*, jacobmischka

Over 200 repositories in a wide variety of languages. Maintain several npm packages, notably react-flatpickr and gatsby-plugin-react-svg with around 30,000 weekly downloads each. Published several additional projects as MCW Anesthesiology (GitHub: mcw-anesthesiology).

2020 **Mechanizing WebAssembly Proposals**, *University of Wisconsin-Milwaukee*

My Master's thesis. Augmented an existing mechanized Isabelle proof of WebAssembly soundness to include new language features added since the mechanization's publication.

2014 **Version-Aware Word Documents**, *University of Wisconsin-Whitewater*

Designed modification to Microsoft Word files to track version changes and tool to merge revisions. Presented at ACM DocEng 2014 and paper published in post proceedings.

Experience

2021–Present **Founding Engineer**, *Interval*

- Architect and develop core business product
 - Primary technologies: TypeScript, Node, React, Python

2015–2021 **Programmer Analyst**, *Medical College of Wisconsin*, Anesthesiology Department

- Developed tools to process, manipulate, and display data in meaningful ways
 - Rust-powered GraphQL server powering data retrieval and analysis
 - WebAssembly-powered client-side case browser and analysis tool
 - Web interfaces using Svelte and React
 - Offline individualized analysis and plotting using Python and Matplotlib
- Developed, updated, and maintained internal departmental web applications
 - Trainee and faculty evaluation system (PHP, Vue)
 - Trainee day-off management system (Rust, JavaScript, React)
 - Academic calendar merger and frontend (JavaScript/Node, React)
 - Lecture attendance tracking application (PHP, React, GraphQL)
 - Department directory (JavaScript, Svelte, Python, GraphQL)
- Managed department websites
 - Public website (Sitecore)
 - Custom intranet site (Wordpress)
 - Custom-made promotional sites for subspecialties (Gatsby, Jekyll)

2011–2014 **Technical Administrator**, *Prairie Woods Golf Course*, Avalon, WI

- Installed and maintained computer hardware and software on site

Education

2017–2020 **Master of Science**, *University of Wisconsin-Milwaukee*, Milwaukee, WI

Program: Computer Science

GPA: 4.0

2011–2015 **Bachelor of Business Administration**, *University of Wisconsin-Whitewater*, Whitewater, WI

Major: Management in Computer Systems

GPA: 3.821