

BENJAMIN MCLEAN

Full Stack Developer | Focused on Craftsmanship and Quality

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SUMMARY

Full-stack developer with an engineering education. Skilled in building scalable web apps using TypeScript, Fastify, React, Next.js, and Supabase. Experienced in owning codebases, infrastructure, and deployments. Focused on clean architecture, TDD, and modern DevOps practices. Proven ability to deliver high-quality solutions and lead projects.

EXPERIENCE

Full Stack Developer

Catalyst Technologies 05/2024 - Present Saskatoon, Canada
Technical owner of multiple full-stack projects in AgTech industry.

- Sole developer responsible for end-to-end delivery on multiple projects. Designed architectures, implemented features, managed deployments.
- Designed and built scalable backend systems using **Fastify**, **Node.js**, **TypeScript**, **Supabase**, and **PostgreSQL**.
- Developed reusable, component-based frontends with **React**, **Next.js**, and **SCSS modules**, sharing components across multiple applications.
- Integrated **Sanity CMS** with intuitive interfaces for content managers.
- Led DevOps efforts by designing CI/CD pipelines and defining integration processes to ensure reliability.
- Selected and managed infrastructure on **DigitalOcean** to support performance and scalability.
- Initiated and led AI R&D projects, including the creation of a virtual sales rep / knowledge base powered by **OpenAI's GPT API**.
- Practiced **test-driven development (TDD)** while writing maintainable **Clean Code**.

Software Developer

Lincoln Electric 05/2021 - 05/2024 Vankleek Hill, Ontario
Created software solutions for robotic CAD operations.

- Created a **time estimation tool** for job quoting using **TypeScript** and **React**, improving quoting accuracy and speed.
- Designed and developed a **2D/3D geometry library** to support advanced CAD-like operations.
- Contributed to a large legacy **C# codebase**, performing refactors, adding tests, fixing bugs, and implementing new modules.
- Mentored a team of co-op students, overseeing the development of internal support tools and providing technical guidance.

EDUCATION

Double Bachelors in Mechanical Engineering and Computing Technology

University of Ottawa

2017 - 2022 Ottawa, ON GPA **7.6 / 10**

PROJECTS

Portfolio Website

<https://ben-mclean-software.com/>

Created portfolio website to showcase side projects.

- Developed static React app hosted on GitHub pages.
- Styled a portfolio page such that it is responsive and works on all devices.
- Developed minesweeper game using TypeScript with full test coverage.

INDUSTRY EXPERTISE

HTML5, JavaScript/Typescript, React, Tailwind

C#, .NET Core, .NET Framework, Bootstrap, ASP.NET

KEY ACHIEVEMENTS

📌 AgraCity Platform

Developed software platform to facilitate the creation of new technologies, including websites, internal business tools, and AI R&D projects.

📌 PythonX-Predict

Created accurate and configurable web-based tool for estimating cutting time of steel beams.

SKILLS

Languages/Frameworks

TypeScript	JavaScript	React	
HTML/HTML5	CSS/CSS3	Bootstrap	
Tailwind	SASS/SCSS	NodeJS	NestJS
Fastify	C#/.NET	ASP.NET	EF Core
SQL	Python	Flask	Java

Tools

Git	GitHub	Azure DevOps	Azure
Docker	Kubernetes	VSCode	
Visual Studio	DigitalOcean		

Databases

PostgreSQL	MySQL	SQLite
Microsoft SQL Server	MongoDB	
Supabase	Indexed DB	