

# Jake Finlay

Full-Stack Software Developer • Software Engineer

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## EDUCATION

### McMaster University

Bachelor of Engineering, Software Engineering, Co-op

Cumulative GPA: 3.8 /4.0

Expected Graduation: April 2027

- **Awards:** Deans' Honor List, The Faculty of Engineering Achievement Award
- **Relevant Coursework:** Software Design, Software Testing, Software Requirements, Data Structures and Algorithms, Object Oriented Programming, Databases, Digital Systems, Computer Architecture, Concurrent Programming

## WORK EXPERIENCE

### Superior Boiler Works and Welding Limited

Systems Engineer Co-op

May 2023 – Aug 2023

Hamilton, ON

- Implemented IT support strategies to resolve **95%** of user technical issues, utilizing **M365 Exchange Servers** and **PowerShell** scripts, resulting in a more efficient workplace environment.
- Managed **Active Directory** accounts for a team of **100** employees, reducing account setup time by **50%** through streamlined **GPO management** processes.
- Collaborated with my team to implement **security protocols** and improve system efficiency, which led to a **20%** decrease in cybersecurity incidents.

## PROJECTS

[Link Ripple](#) | *Next.js, React, TypeScript, MongoDB, Vercel*

- Developed a full-stack application, featuring a **Next.js** frontend and a **MongoDB** backend for managing personalized landing pages with links to social profiles and online resources.
- Implemented **secure user authentication** with registration and login functionalities, ensuring robust security for user accounts.
- Created a **responsive** dashboard that allows users to manage, add, edit, and remove links, with real-time updates reflected on their personalized landing page.
- Deployed the application on **Vercel**, optimizing the user experience for both desktop and mobile devices.

[Bankler](#) | *Next.js, React, Tailwind CSS, TypeScript, Appwrite, Unix, Apache2, GitHub Workflows, PM2*

- Developed a modern banking platform with **Next.js**, flawlessly integrating **Appwrite** for robust backend functionality, and crafted a fully **responsive UI** using **Tailwind CSS** for a modern, user-friendly experience.
- Designed and integrated banking-specific features, including real-time transaction updates, account balance retrieval, and transaction history using server-side rendering and **API routes**.
- Implemented **secure user authentication** and authorization workflows using **Next.js server actions**, enabling seamless user login, logout, and account management.
- Deployed the application on my own self-hosted **Linux** server using **GitHub Workflows**, **PM2**, and **Apache2**.

[Island Explorer](#) | *Java, Maven, SonarQube, JUnit, UML*

- Developed an Exploration Command Center for The Island game using **Java**.
- Applied object-oriented programming principles and design patterns to structure the code, ensuring both **reusability** and **maintainability**.
- Designed and **implemented algorithms** to explore and map unknown islands and identify safe landing zones for rescue operations within the simulated game environment.
- Collaborated with my team using a **Kanban board** to design and implement the required command center.
- Conducted unit tests using **JUnit** and analyzed code quality using **SonarQube**.
- Created **UML** diagrams to help convey ideas to team members and created a UML class diagram to get visual representation of the system that we were building.
- Utilized **Maven** for build automation, JAR file creation, and integration with the test arena.

## SKILLS

**Languages:** Python, Java, HTML, CSS, JavaScript, TypeScript, C, C++, C#, SQL, Verilog

**Frameworks and Libraries:** Next.js, React, Node.js, Express.js, Three.js, .NET, Tailwind CSS, JUnit

**Technologies:** PostgreSQL, MongoDB, DB2, Docker, Azure, Apache2, PM2, Maven, PowerShell, Windows Server

**Tools:** Unix, Git, GitHub, GitHub Workflows, SonarQube, UML, MATLAB, Microsoft Office (Word, PowerPoint, Excel)