

MATTHEW DIBBLE

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SKILLS

Languages C, C++, Rust, Python, TypeScript, JavaScript, Java, PHP, Lua, SQL, Bash, VBA
Technologies Node.js, Express, React, Redux, Postgres, MySQL, Mongo, Redis, JWT, OpenGL
Infrastructure Docker, Kubernetes, Helm, AWS, Azure, Jenkins, Linux, CMake, MSBuild, LLVM

EXPERIENCE

BlackBerry Fall 2021
Systems Software Developer *Waterloo, ON*

- Developed a flexible framework for metric collection for an internal **Rust** library along with **C** bindings
- Designed and implemented a **REST API** that collects client IP details to be used by system administrators
- Enhanced threat-detection software by developing a metadata parser that aggregates crucial information
- Implemented support for **HTTP/2** in component of software allowing for a **15% decrease** in request times

Co-operators Winter 2021
Software Developer *Waterloo, ON*

- Lead developer for several core **Node.js** backend services of an internal large-scale internal web-app
- Created an **API** using **Express.js** for aggregating users' session information and turning it into a PDF format
- Maintained production web-apps and internal **JavaScript** libraries, ensuring continued compatibility

FreshSpoke Summer 2020
Developer & Systems Analyst *Barrie, ON*

- Developed **frontend** for a modular, filterable analytics dashboard used by investors, administration, and clients
- Architected a scalable inventory management system from scratch, enabling high levels of automation
- Created an interim system for tracking inventory in Excel, **writing scripts** leading to a **50% faster** workflow

PROJECTS

Nintendo Entertainment System (NES) Emulator — Rust, SDL2 [Source](#)

- Cycle-accurate emulator of the *NES* that takes advantage of **Rust**'s unique properties
- Degree of accuracy allows for play of *Super Mario Bros.*, *The Legend of Zelda*, and much more

Minecraft Clone — C++, OpenGL [Source](#)

- *Minecraft*-style game built from the ground up with a proprietary, scalable **game engine** using **OpenGL**
- Includes a voxel **terrain generation** system that generates and renders with **optimization** techniques

Flick: Movie Recommendation Service — Node.js, React, Postgres, Express, JWT [Source](#)

- Full stack web-app that tailors movie suggestions for users that **learns from user behaviours** and patterns
- Core developer for the **backend** that implements users and **authentication**, also architecting the service's APIs

EDUCATION

Bachelor of Science in Computer Science, Wilfrid Laurier University September 2018 - August 2023
Bachelor of Business Administration, Wilfrid Laurier University *Waterloo, ON*

- Dual Degree — 11.23/12.00 Cumulative GPA
- Teaching Assistant, Data Structures II