

# Matthew Dibble

4A Computer Science & Business Dual Degree

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## SKILLS

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<b>Languages</b>	TypeScript, JavaScript, Java, Python, HTML/CSS, C/C++, Rust, Lua, SQL, VBA, Google Apps Script
<b>Web</b>	Node.js, Express, React, Redux, Postgres, MySQL, Mongo, Jenkins, JWT, Splunk, Azure, REST, Jest
<b>Systems</b>	Linux, CMake, Visual Studio, MSVC, GCC, Clang, Bash, Docker, Kubernetes, ImGui, OpenGL, SDL

## EXPERIENCE

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### Systems Software Developer (Current)

Waterloo, ON / **Fall 2021**

*BlackBerry*

- Systems software developer working on BlackBerry Gateway, an AI-driven zero trust network access system
- Utilizing Linux, Docker, Kubernetes, JavaScript, Lua, and Python to work on various components of the software

### Software Developer

Kitchener, ON / **Winter 2021**

*The Co-operators*

- Lead developer for several core frontend and backend services of an in-development internal large-scale webapp
- Successfully brought said app from early-stage development to UAT in a time that exceeded expectations
- Maintained production webapps and internal libraries, ensuring continued compatibility with existing dependants

### Developer & Systems Analyst

Innisfil, ON / **Summer 2020**

*FreshSpoke*

- Developed frontend for a modular, filterable analytics dashboard used by investors, administration, and clients
- Architected scalable and practical inventory management system from scratch, enabling high levels of automation
- Created separate interim system for tracking inventory in Excel, writing scripts to improve user workflow

### Logistics Coordinator

Barrie, ON / **Summer 2019**

*FreshSpoke*

- Managed large-scale user experience overhaul project for two mobile applications adhering to set requirements
- Standardized and documented a set of procedures designed for new clients of the platform to get started easily
- Researched and developed solutions to consolidate backend payment processing and evaluated subsequent results

## PROJECTS / Non-exhaustive, view my [GitHub](https://github.com) for a comprehensive list

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

- Cycle-accurate emulator of the *Nintendo Entertainment System* that takes advantage of Rust's unique properties
- Degree of accuracy allows for play of *Super Mario Bros.*, *The Legend of Zelda*, *Donkey Kong*, 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 terrain generation using a custom voxel system that generates and renders at a high level of efficiency

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

- Full stack web-app that tailors movie suggestions for you or your friend group that learns from your behaviour
- Core developer for the backend that implements users and authentication, also architecting the service's API

### CHIP-8 Interpreter w/ GUI and Debugger – C++, OpenGL, Dear ImGui – [Source](#)

- Multi-platform interpreter of the CHIP-8 instruction set that includes a large suite of interactive debugging tools
- Offloads rendering to the GPU using OpenGL as a backend to allow for considerable performance gains

## EDUCATION

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### Wilfrid Laurier University – 11.13/12.00 GPA

Waterloo, ON / **Fall 2018 – Spring 2023**

- Candidate for Bachelor of Science in Computer Science (BSc)
- Candidate for Bachelor of Business Administration (BBA)