

# NATHAN TANG

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## EDUCATION

### University of Alberta

September 2019 – April 2024 (Expected)

- Bachelor of Science (BSc) in Computing Science Specialization in Software Practice
- Data structures, algorithms, computer architecture, databases, operating systems, software design and analysis, networking and security

## TECHNICAL SKILLS

<b>Languages</b>	Python, C, Typescript/Javascript, Java (Android), HTML/CSS, SQL, Bash
<b>Databases</b>	MySQL, PostgreSQL, MariaDB, SQLite, MongoDB, Redis, Cloud Firestore
<b>Technologies</b>	React, Express, Electron, Node.js, Git, Docker, Windows, Linux, RISC-V

## PROJECTS

### Rideshare App | Typescript, React, Express, PostgreSQL, Redis

[github.com/rideshareapp](https://github.com/nathanlytang/rideshareapp)

- Developed a full-stack rideshare application centred around regularly scheduled events. Implemented a REST API backend with authentication using the OAuth 2.0 protocol (Bcrypt and JWT). A fully-featured database implements users, drivers, and administrators, and scheduled trips and events. Frontend built on React using hooks and functional components. Uses Google Maps API to display user location and driver status.

### Steve | Javascript, Node.js, Docker, MySQL

[github.com/nathanlytang/steve](https://github.com/nathanlytang/steve)

- A Discord verified bot that grabs Minecraft server information over the UDP query protocol to return server status and player info. Runs on the Node.js environment in Docker. Deployed to over **100** Discord VoIP servers with **hundreds of active users** every day

### MC Status | Typescript, React, Express

[mcstatus.ev8e2.xyz](https://mcstatus.ev8e2.xyz)

- A web application to complement the Steve Discord bot. Utilizes the same protocol to query Minecraft servers while being more accessible by deploying to the web. Also provides a REST API for developers to build applications that utilize MC Status.

### wg-cli | C, Bash

[github.com/nathanlytang/wg-cli](https://github.com/nathanlytang/wg-cli)

- A CLI tool to manage Wireguard VPN servers built for Linux, using C and C standard libraries. Automates private and public key generation, and peer creation and deletion. Increases productivity upwards of **10x**.

### Inventory Manager | Python, Tkinter, SQLite

[github.com/nathanlytang/InventoryManager](https://github.com/nathanlytang/InventoryManager)

- A lightweight inventory manager desktop application built using Python, Tkinter, and SQLite.

### Address Book | Python, Tkinter

[github.com/nathanlytang/AddressBook](https://github.com/nathanlytang/AddressBook)

- An address book desktop app built with Python using Tkinter and Google APIs. Uses the Google Sheets API to keep data constantly updated across devices using authentication keys

## OTHER EXPERIENCE

**Edmonton Christian Community Church** Audio-Visual Team

February 2019 – Present

**DiscoverE Engineering and Science Camps** Instructor/Volunteer

July 2019 – August 2019

**Royal Canadian Air Cadets** Warrant Officer Second Class, Training NCO

September 2013 – June 2019