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

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

PROJECTS

Rideshare App | Typescript, React, Express, PostgreSQL, Redis
github.com/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
- 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 one hundred thirty Discord VoIP servers with **hundreds of active** users every day.

MC Status | Typescript, React, Express
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
- 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**.

Habitude | Java, Android, Firebase
*github.com/*nathanlytang/habitude
- Designed and built a **real-time** Android social media application to track, encourage, and share habits, making use of location and photos.

Homelab | Proxmox, Docker
- Used **DevOps** practices to learn and deploy **scalable applications** and shorten the development lifecycle to improve code quality and delivery. Practice networking fundamentals such as TCP/IP, VPNs, VLANs, and firewalls using physical network infrastructure.

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*