

NATHAN TANG

nathan.ly.tang@gmail.com | 780-908-8238 | nathanlytang.com | github.com/nathanlytang

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, distributed systems and cluster computing

EXPERIENCE

Dotdash Meredith *Software Engineering Intern*

May 2022 – Present

- Developed and maintained **real-time bidding** and user insight platforms among programmatic advertising partners to ensure high-quality delivery both server-side and client-side across desktop and mobile platforms
- Built data-driven solutions to analyze and optimize ad performance using tools such as **Google Lighthouse**, **Google Analytics**, and reporting dashboards through **Kibana** and Looker Studio
- Optimized client-side requests to **Google Ad Manager**, directly increasing ad visibility and performance
- Collaborated with product managers, engineering, and operations teams to troubleshoot and resolve critical ad delivery issues across brand sites
- Rewrote tagging library test suite with updated test methodologies, and addressed broken or outdated tests to reflect the evolving functionalities of **Prebid**, ensuring comprehensive test coverage and improving overall code quality

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, 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 400 Discord VoIP servers with **hundreds of active** users every day.

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 key generation, and peer creation and deletion. **Increases productivity upwards of 10x.**

Homelab | Proxmox, Docker

- Used **DevOps** practices to learn and deploy **scalable applications** and shorten the development lifecycle to improve code quality and delivery.
- Implement a modern network using TCP/IP, VPNs, VLANs, and firewalls using physical network infrastructure.

TECHNICAL SKILLS

Languages Python, C, Typescript/Javascript, Golang, Java, HTML/CSS, SQL, Bash

Databases MySQL, PostgreSQL, MongoDB, Redis, Cloud Firestore

Technologies React, Express, Django, Node.js, Git, Docker, Android, Windows, Linux, AWS