NATHAN TANG

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EDUCATION

University of Alberta   *September 2019 – April 2024*
- Bachelor of Science (BSc) in Computing Science, Specialization in Software

EXPERIENCE

Dotdash Meredith *Software Engineer*   *April 2023 – Present*
- One of the core developers architecting a new full-stack programmatic advertising delivery service.
- Developed high-speed sorting algorithms optimizing ad configuration delivery and dynamically bundled frontend code, **surpassing page speed and performance expectations**.
- Collaborated closely with the authentication services team to define specifications and requirements, and implement our service's authentication service with single sign-on and OAuth 2.0.
- Integrated our service with various brands across our network and performed A/B testing.

Dotdash Meredith *Software Engineering Intern*   *May 2022 – April 2023*
- Developed and maintained **real-time bidding** and user insight platforms among programmatic advertising vendors to ensure high-quality server-side and client-side delivery across desktop and mobile platforms.
- Optimized client-side requests to Google Ad Manager, **directly increasing ad visibility and performance**.
- Rewrote tagging library test suite with updated test methodologies, and addressed broken or outdated tests to reflect the evolving functionalities of **Prebid**, ensuring comprehensive test coverage and improving code quality.
- Built data-driven solutions to analyze and optimize ad performance using **Google Lighthouse**, **Google Analytics**, and reporting dashboards through **Kibana.**

PROJECTS

Minnow Monocle | Svelte, Typescript, Flutter, Dart, Python, Azure
- Developed the visual recognition system using **OpenCV** ensuring quick and accurate mural identification.
- Designed and built a comprehensive API enabling seamless communication between the mobile app, administration CMS, and the backend server.
- Engineered the entire database layer, ensuring data integrity and retrieval for a smooth user experience.
- Developed a full-stack administration CMS panel for managing mural information, providing an intuitive interface for content updates and maintenance.
- Deployed the services on Microsoft Azure, maintaining **high availability and scalability**.

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, administrators, and scheduled trips and events.

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 in the **Node.js** environment in **Docker**.
- Deployed to **over 600 Discord servers** and serves **hundreds of active users** daily.

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, Azure