Tony Qiu

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EXPERIENCE

Web Developer | Allway Media Design   *May 2023 — Aug. 2023*
- Developed and maintained company profile websites using **React (TypeScript)**, **CSS**, **PHP**, and **MySQL**
- Implemented **MVC** architecture for code maintainability, **Git** for version control and **pair programming**, **Postman** for **API testing**, and GitHub for creating detailed bug reports
- Implemented honey pot fields and **JavaScript** regex to reduce spam messages on forms by 100%

Web Developer | BrightBearsInfo   *May 2021 — April 2023*
- Led a team of 3 developers in **agile scrum meetings** to develop an online learning management system (LMS) with an integrated admin CMS using **React**, **Flask**, **MySQL**, and **Figma**
- Spearheaded a gamification feature by integrating points, badges, and a leaderboard used by **300 monthly active users** (MAUs), **increasing user engagement per session by 110%**
- Architected **multi-factor authentication** by validating users with **OAuth2** and a one-time passcode via **SMS**

PROJECTS

Job Portal + Job Management CMS   *React, Express, TypeScript, Redis, Docker, MongoDB*
- Employed the **MERN (TypeScript)** stack to build a job portal covering the applicant UX from start to finish along with an integrated admin CMS for job management and the ability to interact with the web app's performance over time
- Features: **Hashed user data** in a **MongoDB** database, authenticated REST API routes with **JWTs,** automated database aggregation with **cron jobs**, utilized **Redis** to manage **session tokens**, displayed live updates with a socket.io **WebSocket** server, leveraged **AWS S3** to implement **file uploads**, and automated emails using **SMTP**

Website Traffic Tracker + Traffic Visualizer   *React, Express, TypeScript, MongoDB, Docker*
- Utilized the **MERN (TypeScript)** stack to let developers collect and interact with their websites' traffic data, currently monitoring 40+ websites and serving **50,000 HTTP requests** per week
- Implemented **multithreading** in an **Express REST API**, **increasing HTTP request handling by 95%**
- Architected an interactive end-to-end **moving average visualization feature** of **JSON** data

Next.js Component Library   *Next.js, React, TypeScript, Jest, React Testing Library*
- Developed an ecosystem of 50 **React (TypeScript)** components used in 10 projects by 6 developers to expedite custom frontend development
- Built sliding panels, pop-ups, navigational tabs, interactive menus, and tables, reducing the development of a multi-faceted analytics dashboard from hours to minutes
- Utilized **test-driven development** with **Jest** and **React Testing Library** to **unit test** 50 **React** components

Spotify Playlist Image Generator   *React, FastAPI, MySQL*
- Used **React**, **FastAPI (python)**, and **CockRoachDB** to create AI-generated images for users Spotify playlists
- Utilized **Python Pools** in conjunction with **parallel processing** to **reduce latency in the core feature by 80%**

SKILLS

Languages: TypeScript, JavaScript, HTML, CSS, Java, Python, SQL, PHP
Tools and Databases: Git, Docker, Jenkins, Kubernetes, Jira, Selenium, Postman, MySQL, Figma, AWS, Azure
Libraries/Frameworks: Redux, Cypress, Storybooks, React.js, Angular.js, Flask, React, Jest, React Testing Library

EDUCATION

The University of Waterloo   **Waterloo, ON**
Bachelor of Applied Science - BASc, Management Engineering   *Sep 2022 - Apr 2027*