Justin Zhang

Full-Stack Software Engineer **(He/Him)**

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Experience

Infrastructure Software Developer Intern

Ciena — Sept 2023 - Nov 2023

`Ansible` `Docker` `Postgresql` `Bash` `InfluxDB` `Grafana` `React` `Git/Bitbucket` `Gerrit` `Jira` `Python` `Confluence`

Infrastructure and Off-Switch Tools Team - Developing devops tools

- Composed Ansible playbooks to setup high-availability dockerized postgresql clusters in a primary-standby architecture across multiple cloud nodes which reduces company setup time to spin up HA databases.
- Assembled monitoring and alerting of High Availability postgresql servers via the time-series database InfluxDB and a Grafana dashboard which allows for quick debugging of database issues.

Computer Science Teaching Assistant

Carleton University — Sept 2022 - Dec 2022

`Linux (Ubuntu)` `C` `VirtualBox` `Bash` `GDB` `Valgrind` `GCC`

Systems Programming in C - Ran Workshops on Low-Level Fundamentals

- Educated C programming concepts to 90 students in an office hours setting which led to a letter grade increase for 50% of students. (Bit Manipulation, Pointers, Structs/Typedef)
- Coordinated 12 tutorials on systems tooling (GDB, Valgrind, Bash) thus improving student assignment completion rate to 90%.
- Improved assignment marking for 4 teaching assistants by designing 5 markdown grading templates/rubrics, thus preventing late marking deadlines.

Co-Founder

Heaples — Mar 2020 - Oct 2022

`Nextjs` `TailwindCSS` `TypeScript` `PM2` `Storybook/Chromatic` `ClickUp API/Notion` `Styled-components` `AWS EC2/S3/DynamoDB` `Git/Github` `Notion` `MUI`

Startup/Core Team - Contributed to the Development/Design of the Heaples Landing Page, Invitation platform, Component library, and Blog/Press Vertical

- Optimized the start-up's verticals into three separate applications (landing page, invitation platform, blog) on three subdomains to decouple and shrink each application's learning curve for each member of our team of 4.
- Overhauled the landing page (SPA) for easier user navigation, color, and design consistency.

Software Developer Intern

TheRounds — Sept 2021 - Dec 2021

`React` `Typescript` `Golang` `Docker` `Jira` `Jest` `Redis` `Postgres` `Git/Github`

Core Platform Team - Contributed to the network platform for medical professionals

- Reduced internal page image loading by lazy-loading images progressively from AWS S3.
- Developed 20+ Unit Tests with RTL to check for component rendering along with acceptance testing on the staging site.
- Converted elements from Angular 1.5 into React components following atomic design.

Education

Bachelor of Computer Science (Honours)

Carleton University — Sept 2018 - Dec 2023

Software Engineering Stream - Minor in Business

Community

TEDxCarletonUniversity Speaker

Presented a talk on Healthy Lifestyle and Habits to a crowd of **150+ students & faculty members.**

Cyber Security Club President

Former-President and Events Executive of Carleton University's Cyber Security Club, Managed events and competitions for **200+ club members**. Hosted online presentations for security professionals averaging 30 club members.

CyberSec Competition Founder - Sacred CTF

Produced a CTF for **40+ High School Students** (Forensics, Cryptography, OSINT). Created 20 challenges hosted on the CTFd framework sitting on an EC2 instance.

Non-Profit Pro-Bono Web Developer - Creator's Corner Club

Completed **pro-bono projects for local businesses** in the Ottawa area with a team of 12 over 4 months.

Projects

Freelance Web Developer

spheretech.xyz | ftgirlsgirls.com | relyion.ca | greenshift.world

Programmed websites and fashioned marketing material for Carleton University s Incubator Program. (Innovation Hub)

Ingenium Innovation Challenge

Keras/Tensorflow | Nextjs/i18next | TailwindCSS | Framer Motion | Vercel

Implemented a web app to teach kids aged 9-12 the importance of positive climate action. **(Placing 2nd overall)**

Wordlist Creator

Python | FastAPI | BeautifulSoup4 | Chakra-UI | TailwindCSS

Engineered a Wordlist creator based on **17000 pages of data personally scrapped** with BS4.

Crash Simulator

Flask | Python | Matlab | Vercel | TailwindCSS | HTML/CSS/JS

Fabricated a simulator to explore the casino game Crash and the statistics/math behind why it is impossible to win.