

# Hanlin Cheng

hanlincheng.me

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## SKILLS

**Languages** • TypeScript, JavaScript, Java, C++, HTML, CSS

**Frameworks and Tools** • React.js, VueJS, AngularJS, Node.js, Jest, Jasmine, CUDA, Git, Figma

## EXPERIENCE

**Full-Stack Developer Intern** • **Imagine Communications**

September 2020 - December 2020

- Developing new features with **AngularJS (TypeScript)**, **PostgreSQL** and **RESTful** web services in an Agile environment for high-volume industry clients in a multi-threaded TV content and ingest playout web application
- Published videoplayer component API **npm package** in **Typescript** for a third-party **VueJS** widget
- Driving **E2E** integration and **unit testing** of core components with **Jasmine**, **Karma**, **Cypress**, and **Protractor**

**Information Technology Intern** • **VMware (Formerly Pivotal Software)**

January 2020 - April 2020

- Programmed with Test Driven Development and XP Agile methodologies for an internal inventory check-out system using **React.js**, a **REST API** client, and **Jest** to decrease manual sign-out time by **25%**
- Deployed and developed **JavaScript** programs to automate the identity app migration process for **200+** internal applications from Pivotal to VMware

**Software Developer Intern** • **Sunnybrook Research Institute**

July 2020 - September 2020

- Revamped MATLAB data pipeline scripts into **C++** parallel computations by leveraging the **CUDA Driver API** to rework ultrasound treatment-monitoring program
- Reduced data pipeline memory transfer requirements by **48 times** through developing **CUDA kernels**

## COMMUNITY AND PROJECTS

**Frontend Developer** • **Civic Tech Toronto**

February 2020 - Present

- Collaborating with a team of 20 to design and implement a **React.js** application for the Accelerator Project, a non-profit focused on mentoring underhoused youth, with **JavaScript**, **MaterialUI**, and **Jest** unit testing
- Created a custom UI **component design system** to construct **12+** reusable and responsive website features
- Rapidly prototyped low-high fidelity wireframes, personas, and interactive userflows in **Figma** for increasing discoverability and guiding organization vision

**Software Developer** • **UW Blueprint**

- Building an interactive map platform in partnership with the Shoe Project with **React.js**, **Golang (Chi)**, **PostgreSQL**, and **Docker** to showcase a portfolio of Canadian immigrant women's stories through a symbolic pair of shoes
- Streamlined development workflow by setting up **CI/CD pipelines** with Github Actions
- Generated **full test coverage** for custom Go **REST API endpoints** by leveraging GORM, httptest, and testify libraries

**ecolens** • **Elle hacks 2020 Most Innovative Hack Runner-Up**

February 2020

- Designed and developed a native **Android** application that views a garbage item through a real time video stream and suggests creative DIY crafts with **Java**, a **REST API**, and **Firebase ML Kit**
- Implemented **Volley** library with a custom **Google Cloud AutoML** classification model for image detection

## EDUCATION

**University of Waterloo** • **BASc in Systems Design Engineering**

September 2019 - May 2024

**Relevant Coursework** • Data Structures & Algorithms (C++), Digital Computation (C++), Human Factors in Design

**Involvement** • Chandrashekar Scholarship, **Rewriting the Code 2020-2021 Fellow**, UW Blueprint, Intramural Soccer

## INTERESTS

Watercolour illustrations • **@forcontext** podcast content creator • Puzzlehunts • the San Antonio Spurs