Hanlin Cheng

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SKILLS

Languages • TypeScript, JavaScript, Go, Java, C++, HTML, CSS, MATLAB

Frameworks and Tools • ReactJS, VueJS, AngularJS, PostgreSQL, Node.js, Jest, Jasmine, CUDA, Git, Figma

EXPERIENCE

Full-Stack Developer Intern • Imagine Communications   September 2020 - December 2020
- Developed core features with **AngularJS (TypeScript)**, **PostgreSQL,** and **RESTful** web services for high-volume industry clients in a multi-threaded TV content playout and ingest web application
- Published a resusable **VueJS** (**TypeScript)** videoplayer API **npm package** for third-party HTML5/DASH proxy video playback
- Drove E2E integration and unit testing to increase test suite coverage by **20%** 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 **ReactJS**, 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

Software Developer • UW Blueprint 🔗   September 2020 - Present
- Building an interactive map platform in partnership with the Shoe Project with **ReactJS, LeafletJS, 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 **100%** test coverage for custom **REST API endpoint**s by levaraging GORM, httptest, and testify libraries

Web Developer • Civic Tech Toronto 🔗   February 2020 - January 2020
- Collaborated with a team of 20 to design and implement a **ReactJS** 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

ecolens • Ellehacks 2020 Most Innovative Hack Runner-Up 🔗   February 2020
- Designed and developed a native **Android** application that analyzes a household recycling 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   3.8 GPA 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