Hanlin Cheng

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Skills

- **Languages:** JavaScript, TypeScript, HTML, CSS, Java, Python, C++
- **Frameworks and Tools:** React.js, Node.js, GraphQL, Cloud Foundry, Android, CUDA, Git, Figma, JIRA

Experience

VMware Inc. (Formerly Pivotal Software) • IT Developer Intern Winter 2020
- Programmed with **Test Driven Development** and **XP** Agile methodologies for an internal inventory check-out system using **React.js**, a **REST API** service, and **Jest** to decrease manual sign-out time by **25%**
- Deployed and developed **JavaScript** programs to begin automating the identity app migration process for **200+** internal applications from Pivotal to VMware
- Built a team Slack chatbot application in **Python** and deployed it on **Cloud Foundry**, alongside integrating with **PWS** cloud computing architecture

Civic Tech Toronto • Web Developer February 2020 - Present
- Leading **20** people in the design and implementation of a **React.js** website for the Accelerator Project, a non-profit focused on mentoring underhoused youth, to improve usability and branding
- Developing responsive full-stack web components from end-to-end with **JavaScript**, **HTML,** and **CSS**

Sunnybrook Research Institute • Software Development Intern Summer 2019
- Revamped MATLAB data pipeline scripts into **C++** parallel computations by leveraging the **CUDA Driver API** to rework ultrasound treatment-monitoring program
- Reduced pipeline memory transfer requirements by **48 times** through developing **CUDA kernels**
- Conducted NSight Profiling analysis for utilization bottlenecks to cut total execution dependency by **50%**

Projects

ecolens • Ellehacks 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

Allertgen • Deltahacks 2020 January 2020
- Developed a **Python (Flask)** web application implementing **GCP Vision**, **AutoML**, and **Translation APIs** in **Google Cloud App Engine** that identifies if uploaded food items are allergy risks by parsing recipe websites

hanlincheng.me • Personal Website April 2020
- Constructed and designed a **Gatsby.js** site with **React**, **GraphQL**, **TypeScript**, **JavaScript**, and **React Hooks** to display a landing page for my personal projects as well as a blog for fast Markdown content rendering

Education

University of Waterloo • BASc. in Systems Design Engineering 2019-2024
- **Relevant Coursework:** Data Structures & Algorithms (**C++**), Digital Computation (**C++**), Human Factors in Design
- **Community:** Chandrashekar Scholarship, Rewriting the Code 2020-2021 Fellow, Intramural Soccer

Interests

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