

Hanlin Cheng

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SKILLS

Languages TypeScript, JavaScript, Python, Ruby, Java, C++, HTML, CSS

Technologies React, Redux, Rails, Django, Vue, Express, Node.js, MongoDB, PostgreSQL, Cypress, Jest

EXPERIENCE

Software Engineer Intern — Pavilion

May 2023 - Aug 2023

- Automated the contract offering augmentation process using text embeddings in Python to significantly reduce overhead costs from **\$2.20 to \$0.10** per contract and expanding platform-wide contract offerings coverage from **7% to 44%**.
- Designed a contract file hashing system in the data ingestion pipeline, boosting cache hits to **90%** for new contracts and eliminating optical character recognition (OCR) queue overload.
- Led the launch of critical features in a React and Django platform, including a new user invitation flow and contract supplier location-based filters, improving buyer conversion and search click-through rates.

Software Engineer Intern — Modern Treasury

Sep 2022 - Dec 2022

- Built new programmatic payout and card flow endpoints in a financial ledger Ruby on Rails API to process **700K+** requests per week, optimizing database transactions with appropriate indexes and latency benchmarking.
- Reduced round trip requests by **50%** for synchronous user fund demands by scoping and implementing the return of live ledger account balances on response attributes for the POST and PATCH ledger transaction API.
- Implemented transaction metric graphs and ledger transaction version timelines in the product's dashboard interface using GraphQL and React (TypeScript), surfacing more actionable pricing insights to customers.

Software Engineer Intern — Intuit

Jan 2022 - Apr 2022

- Developed and deployed customer tax return calculation steps to TurboTax Online, serving **5M+** peak users with XML, Java, Springboot, Maven, and AWS.
- Owned the creation of a data scrubber service to filter personal identifiable information (PII) from key consumer metric data, affecting **860,000+** entries in Splunk.

Software Developer Intern — Voiceflow

May 2021 - Aug 2021

- Developed React (TypeScript) and Redux components used by over **100K+** creators for a real-time, multiplayer canvas.
- Built Voiceflow Transcripts, increasing monthly active users per workspace by **20%**, through creating microservice REST endpoints with Node.js, Express, PostgreSQL, and MongoDB.

COMMUNITY

VP of Engineering — UW Blueprint

Aug 2023 - Present

- Lead software engineering and mentorship initiatives across UW Blueprint to oversee **60** developers in **8** project sub-teams.
- Drive architectural design reviews, establish coding standards, coordinate developer recruitment, and assess project feasibility, resulting in improved project outcomes and elevated technical proficiency.

Undergraduate Research Assistant — Human-Computer Interaction (HCI) Lab

May 2022 - Aug 2022

- Published paper here in CHI' 2023. Investigated the effects of consuming climate change digital content under the advisory of Dr. Edith Law through topic exploration, conducting user interviews, qualitative coding, and regression modelling in R.

Technical Lead and Project Developer — UW Blueprint (Community Fridge KW and Shoe Project)

Sep 2020 - Aug 2022

- Led and mentored a 7-member development team in creating a centralized food donation scheduling platform for 200+ volunteers, and delivered an interactive map platform in partnership with the Shoe Project using technologies such as React (TypeScript), Express, Go, PostgreSQL, Firebase, and Docker.

EDUCATION

Candidate for BASc. in Systems Design Engineering — University of Waterloo

Sep 2019 - Apr 2024 (Expected)

Relevant Coursework: Foundations of AI (Python), Pattern Recognition (Python), Data Structures and Algorithms (C++)

Interests: Soccer, San Antonio Spurs, Watercolour Painting