Eric Xu e29xu@uwaterloo.ca github.com/ericx20 ericx20.github.io

Languages: JavaScript TypeScript Python Ruby C/C++ HTML CSS

Technologies: React Redux Vue Svelte Node.js Jest Git Rails Express

Experience

Vidyard | Software Developer

Sep 2022 - Apr 2023

- Worked on the Onboard team to build features for new users on Vidyard's sales video platform
- Implemented a UX enhancement with Vue to help 14% more users set up video settings in the right folder
- Refactored video recording logic to be shared across the app, simplifying code and enabling any page to record videos
- Identified and fixed a recording bug in our Chrome extension, saving users 330,000 redundant clicks every month
- Maintained a Ruby on Rails back-end and migrated the SQL database to drop obsolete data

Hemora Ltd. | Front-End Developer

Jan 2022 - Apr 2022

- Created front-end for Hemora's flagship map app with React and TypeScript, designed for solar field technicians
- Implemented an offline-first map editor with queueable network requests using Redux
- Constructed an interactive map editor UI around an XState state machine defining its behaviour
- · Designed the company's logo, brand identity, website, and custom icons with Figma

Molex Canada | Front-End Software Developer

May 2021 - Aug 2021

- Created a web app in Vue and TypeScript for configuring controllers used in automated assembly lines
- Maintained Vue web app for remotely configuring industrial automated systems
- Wrote unit tests with Jest and End-to-End tests with Gauge and Python

Projects

CrystalCube

2023

- Developed an online tool to train Rubik's Cube skill for the first solving step, using React and TypeScript
- Wrote a DFS algorithm to find the best solutions for any cube scramble, for training better technique and efficiency
- Optimized the algorithm to find the highest-difficulty solutions 34x faster than its competitor
- Pioneered the first 3D cube visualizer that highlights incorrectly twisted edge pieces with Three.js

Virtual Yearbook

2021

- Developed a web app with Svelte for signing digital yearbook pages via shareable links
- Implemented a canvas with adjustable brush size & colour, undo/redo and image export using JavaScript
- Built Node.js back-end featuring Express.js for endpoints and MongoDB database
- Established a REST API to allow users to perform CRUD operations on the signing pages

Braille Printer

2020

- Led a team of 6 students to build a working proof of concept for an affordable braille printer
- Built printing mechanism with Mindstorms robot kit, wrote Python algorithm to convert text into motor instructions
- Minimized the cost of the prototype to be 80% cheaper than the cheapest commercial braille printers

Achievements

Waterloo Canadian Computing Competition (Senior Level)

2020

• Achieved **Top 4**% out of over 2800 competitors

ECOO-CS Programming Contest

2020

Won First Place in the Dufferin-Peel Catholic District School Board

Education

University of Waterloo | Bachelor of Software Engineering

2020 - Present

Interests

Competitive speedcubing, graphic design, music production