Eric Xu

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

Technologies: `React` `Redux` `Vue` `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 feature with **Vue** to help **14% more** users set up video settings in the right folder
- Proposed and performed an extensive refactor to let any page in the app start video recordings, enabling more features
- Identified and fixed a recording bug in our Chrome extension, saving users **330,000** redundant clicks every month
- Maintained a **Ruby on Rails** backend 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**
- Built 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 efficiency for the first solving step, using **React** and **TypeScript**
- Engineered a highly optimized DFS algorithm to find the best solutions for any cube scramble
- Finds the highest-difficulty solutions **34x faster** than its competitor
- Pioneered the first 3D cube visualizer that highlights incorrectly twisted edge pieces

Virtual Yearbook   *2021*
- Developed a web app for signing digital yearbook pages with **HTML, CSS** and **JavaScript**
- Built **Node.js** back-end using **Express.js** for endpoints and **MongoDB** database for yearbook pages
- Established a **REST API** that supports CRUD operations on yearbooks and shareable yearbook codes
- Implemented canvas undo/redo in **JavaScript** with undo and redo histories

Braille Printer   *2020*
- Established a working proof-of-concept for an affordable braille printer with a team of 6 students
- Constructed braille printing mechanism using Mindstorms robotics platform, controlled by **Python** hardware API
- The prototype is **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 – 2026*

Interests

Competitive speedcubing, graphic design, music production