Eric Xu e29xu@uwaterloo.ca 😝 github.com/ericx20 ## ericxu.net

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

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

Experience

Relay Financial | Full Stack Software Engineer

May 2024 - Aug 2024

- Simplified registration to reduce drop-off rates by 2.2% on Relay's banking platform trusted by 120,000+ businesses
- Discovered and fixed a vulnerability in the backend using **Node.js** and **Express.js**
- Spearheaded major accessibility improvements such as keyboard navigation support with HTML and CSS
- Designed and implemented a new flow for accepting invites on Relay's React Native mobile app

Capital One Canada | Front End Software Engineer

Sep 2023 - Dec 2023

- Improved screen reader and keyboard support for homepage with 40,000 daily visitors using JavaScript and HTML
- Built 5 foundational components for the company's next generation React component library with TypeScript
- Implemented accessible Modal Dialog with systems for limiting screen reader and keyboard interactions within modal

Vidyard | Software Developer

Sep 2022 - Apr 2023

- Worked on the Onboard team to improve the new user experience on Vidyard's sales video platform
- Implemented an overlay with Vue to guide users to settings page, helping 14% more users correctly setup video settings
- Fixed Chrome extension bug causing users to record multiple videos at once, saves 330,000 redundant clicks per 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

- Designed and built the entire front end of Hemora's flagship map app with React and TypeScript
- Implemented an offline-first map editor for solar technicians with queueable network requests using Redux
- Constructed an interactive map editor UI controlled by an XState state machine to guarantee expected UI 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 devices that control 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 – Present

- Invented the best online tool for training Rubik's Cube first step, 1400 weekly views and endorsed by world-class cubers
- Wrote and optimized DFS algorithm in TypeScript to generate scrambles and solutions 13x faster than competitor
- Designed a responsive UI with React and pioneered novel 3D visualizer for incorrect Rubik's Cube pieces with Three.js

AlgDB ☑ 2023 - Present

- Developed full-stack Next.js web app for centralized Rubik's Cube algorithm database with a team of 10 engineers
- Implemented SSO authentication using NextAuth and Prisma with a custom OAuth provider for World Cube Association

ZZMethod.com ☑ 2023 – Present

- Established a Next.js website for learning Rubik's Cube technique with over 30,000 page visits
- Designed interactive 3D visuals and wrote 16,000+ words of high-quality articles with a team of 3 experts

Virtual Yearbook ☑ 2021

- Created a web app with Svelte for signing digital yearbook pages via shareable links during the pandemic
- Implemented a canvas with adjustable brush size & colour, undo/redo and image export using JavaScript
- Built a Node.js backend with Express.js for endpoints and MongoDB database

Education