

# Eric Xu

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## Languages

[HTML](#)[CSS](#)[JavaScript](#)[Python](#)[C](#)

## Technologies & Tools

[Node.js](#)[Express.js](#)[MongoDB](#)[Bootstrap](#)[Git](#)

## Projects

### Virtual Yearbook

- Developed a web app for signing digital yearbook pages amid COVID-19
- Built backend with **Node.js** and **Express.js**, featuring **MongoDB** database for storing yearbook pages
- Established a **REST API** that supports CRUD operations and shareable links
- Implemented undo/redo, customizable brush, image export in **JavaScript**

### Braille Printer

- Constructed proof of concept for affordable braille printer, costing **6x less** than commercial options
- Designed braille printing mechanism and programmed a hardware API in **Python**
- Collaborated remotely with a team of 6 students using Git version control

### 5x5 Rubik's Cube Solving Robot

- Engineered and programmed an original robot that solves the 5x5 cube
- Wrote a **Python** script to translate and execute solutions generated by an open-source algorithm
- Employed **OpenCV** image recognition to scan the faces of the cube

## Experience

### Graphic Designer | HID Technologies

*Sept – Dec 2020*

- Designed logo, brand identity, illustrations, packaging for ergonomic keyboard company
- Gained experience working with clients in a professional manner

### Math Tutor | Trusty Tutoring

*April – Aug 2020*

- Tutored Grade 12 IB math topics such as combinatorics while facilitating individual learning styles
- Enhanced speaking and listening skills through presenting concepts in a clear and engaging way

### Event assistant | Streetsville BIA

*2015 – 2018*

- Assisted with organizing and managing events such as Canada Day, Christmas, Bread & Honey Festival
- Strengthened leadership and teamwork skills by setting up and running arts & crafts stations with a team

## Achievements

**Top 4%** | Waterloo Canadian Computing Competition 2020 Senior Level**School Champion** | Waterloo Canadian Senior Mathematics Contest 2018**First Place** in school board | ECOO Programming Contest 2020

## Education

**Bachelor of Software Engineering** | University of Waterloo*2020 – 2025*

## Interests

Competitive speedcubing, robotics, composing music