# Edwin Zhang

# Experience

Waterloop
Back End Software Team

Waterloo, ON Sept 2017 - Present

- Migrated Node.js hyperloop pod communication server to Go and decreased latency by 40%
- Implemented I2C communications channel and QUIC network protocol to reduce packet send times by 3x

# **Projects**

React Ticket to Ride github.com/edwinzhng/react-ticket-to-ride

Personal

Nov 2017

- Digital version of Ticket to Ride built using Meteor and React
- · Implemented graph algorithms to calculate possible moves

Automatic Cannon github.com/edwinzhng/automatic-cannon

Personal Nov 2017

- Self-aiming cannon that launches projectiles towards targets
- Engineered automatic servo movement and calculated projectile trajectories using **Python** and **Go**

Aya devpost.com/software/aya

Finalist and AWS Award - Hack the North

- · Robotic head with jaw movement powered by a Raspberry Pi
- Built Python backend, worked on label selection algorithm, and integrated Amazon Web Services for text-to-speech output, image recognition and facial detection

Messenger LaTeX devpost.com/software/messenger-latex

First Place - MHacks Nano Jun 2017

- Chrome extension built with JavaScript and MathJax to render LaTeX in Facebook Messenger with over 300 users
- Developed live preview, clicking to copy equations, and PNG rendering

Study Space Executive study space wchs.com

Tutoring Club Nov 2016 - May 2017

- Designed website using HTML, CSS and JavaScript for high school tutoring club to host study packets in maths and sciences
- Organized and led weekly executive meetings and tutoring sessions for over 150 students

#### Skills

#### Knowledgeable

C++ // C // Python

Go // JavaScript // React

HTML // CSS // Node

#### **Prior Experience**

Java // Meteor

MATLAB // Octave

AWS // MongoDB // SQL

#### **Awards**

- Top 4% algorithms contest rating on HackerRank
- 4<sup>th</sup> Calgary Collegiate
   Programming Contest 2017

## Coursework

- · Algorithms by *Princeton*
- · Machine Learning by Stanford

## **Interests**

Underwater Hockey // Music Cryptocurrency // Video Games Machine Learning // Hackathons

## Education

#### University of Waterloo

Bachelor of Software Engineering 2017-2022 // Waterloo, ON