# Edwin Zhang

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## Experience

Waterloop

Waterloo, ON

Back End Software Team

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

Personal

github.com/edwinzhng/react-ticket-to-ride

Nov 2017

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

**Automatic Cannon** 

Personal

github.com/edwinzhng/automatic-cannon

Nov 2017

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

Aya

Finalist and AWS Award - Hack the North

devpost.com/software/aya

Sept 2017

- · 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

First Place - MHacks Nano

devpost.com/software/messenger-latex

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**

Tutoring Club

studyspacewchs.com

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

#### Coursework

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

## **Awards**

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

## **Interests**

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

## Education

#### University of Waterloo

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