

# Edwin Zhang

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## Experience

### Waterloop

#### Back End Software Developer

Waterloo, ON

Sept 2017 – Present

- Migrated **Node.js** hyperloop pod communication server to **Go** and tested network speeds extensively
- Implemented **QUIC network protocol** to reduce data packet transmission latency by **95%**

## Projects

### PolyTerrain

[github.com/edwinzhng/polyterrain](https://github.com/edwinzhng/polyterrain)

Personal

Dec 2017

- **Procedurally generated** low-poly environments built with **C++** and **Unreal Engine 4** using **voxels** and **maze generating algorithms**

### Automatic Cannon

[github.com/edwinzhng/automatic-cannon](https://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](https://devpost.com/software/aya)

**Finalist and AWS Award** - Hack the North

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

[devpost.com/software/messenger-latex](https://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

[studyspacewchs.com](https://studyspacewchs.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 5%** - 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  
• Dean's Honor List (1 term)