

Edwin Zhang

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Technologies

C / C++

Python

JavaScript / React / Node

Go

Java

HTML / CSS

AWS

TensorFlow / Keras

SQL

MongoDB

Interests

Underwater Hockey

Music

Machine Learning

Computer Graphics

Cryptocurrency

Hackathons

Experience

Waterloop

Waterloo, ON

Back End Software Co-Lead

Sept 2017 – Present

- Implemented multiplexed **QUIC network protocol** to reduce data packet transmission latency **by 90%**
- Migrated **Node** hyperloop pod communication server to **Go** and decreased server memory usage **by 30%**

Projects

InfinityChat

github.com/edwinzhng/infinitychat

Jan 2018

- **Real-time chat app** that connects random users together
- Built user interface with **React** and fully functional server-side using **MongoDB**, **Express**, **Node** and **Socket.io**

PolyTerrain

github.com/edwinzhng/polyterrain

Dec 2017

- **Procedurally generated** low-poly environments built with **C++** and **Unreal Engine 4** using simplex noise and voxels

Automatic Cannon

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** and **Go**

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 and label selection algorithm
- Integrated **Amazon Web Services** for face detection, image recognition and text-to-speech output

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 from scratch

Education

University of Waterloo

Waterloo, ON

Bachelor of Software Engineering

2017 - 2022

- Dean's Honor List (1 term)