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Passionate software developer building solutions to the world's problems. You can find more about me and my work on my personal website at <u>jzhao.xyz!</u>

education & skills.

University of British Columbia, 2023 B.Sc Candidate for Computer Science, Vancouver

Skills: Python, Go, Scala, JavaScript, Bash, Envoy, Express, Node, TensorFlow, Flask, SumoLogic, Mongo, SQL

Tools: Jira, Confluence, Jenkins, Kubernetes, Docker, Git, Scrum Agile

experience.

Hootsuite, 07/2019 - 09/2019, Vancouver, Canada - Highschool Software Development Intern

- Fixed **Scala** bug causing ~3200 errors affecting around ~3000 unique users per week.
- Implemented an internal endpoint with **Scala** and **SQL** to assist with data compliance requests.
- Defined SLOs in SumoLogic for the Event Bus, Core Authentication, and Social Communications Services.
- Proposed and implemented a proof of concept front-proxy service mesh with Envoy and Istio to break down a Scala monolith service into Dockerized Go microservices. Deployed on Kubernetes and Jenkins.

Ann Lee Consulting, 06/2019 - current, Remote - Contract Software Engineer

- Created student and admin site for student management to relieve overdependence on manual work.
- Design frontend with **Pug** and **JavaScript**. Backend with **Node**, **MongoDB**, and **Express**.
- Containerized MongoDB server with Docker and hosted on AWS EC2. Node App deployed on AWS Elastic Beanstalk.

personal projects.

DroneNet, 08/2018 - 05/2019 - Independent Project - github.com/jackyzha0/DroneNet

- Built drone from scratch using an **RPi** to improve upon current search and rescue operations.
- Re-architected and trained a more compact model of YOLOv3 with **Tensorflow Python** to detect people in aerial images, achieving nearly 75% state-of-the-art recall on the KITTI dataset.

Speech2Braille, 07/2017 - 05/2018 - Canada Wide Science Fair - github.com/jackyzha0/nsound_git

- Invented a wearable device to augment the hearing capabilities of the hearing impaired.
- Designed data pipeline with **Python** and **numpy** and trained end-to-end LSTM-CTC speech recognition model with **Tensorflow Python**, achieving 92% state-of-the-art word error rate on the TIMIT dataset.
- Created functioning prototype for a device built from an RPi to display tactile braille.

PacketBook, 01/2018 - nwHacks 2018 - github.com/jackyzha0/nwhacks2018

- Built to help the 2 billion people who are unbanked, PacketBook allows users to securely use banking utilities through text messages by utilising the **Stellar** Blockchain.
- Created backend with **Flask** in **Python** for managing encryption, call verification with **Twilio**, and storage in a **MongoDB** database and hosted on **Heroku**.

awards.

Scholarships: BCIC Young Innovator Scholarship 2018, Dean of Science Scholarship 2019, Weston Youth Innovation Award National Semifinalist 2019

Hackathons: nwHacks 2018 (Top 30, SAP iXp - "Hey SAP, I Got Your Hack" Award, The Wolfram Award)

Other: Canada Wide Science Fair Silver Medal 2018, Greater Vancouver Regional Science Fair 2018 (Gold Medal, David Laugharne Award, In Ink Scientific Writing Award)