jacky zhao.

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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 jzhao.xyz!

education & skills.

University of British Columbia, 2023 B.Sc Candidate for Computer Science, *Vancouver*
Skills: *Python, Go, Scala, JavaScript, Envoy, Express, TensorFlow, Flask, SumoLogic, Mongo*
Tools: *Jira, Confluence, Jenkins, Kubernetes, Docker, AWS, GCP, Azure, 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 **Docker**ized **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.
- Initial implementation with **Pug, Javascript, Node, MongoDB,** and **Express**. Rewrote backend in **Go** to reduce technical debt and increase ease of deployment and future scalability.
- MongoDB instance running on **Mongo Atlas**. **Docker** containerized **Go** backend deployed on **AWS EC2**.

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)*