

# 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](https://jzhao.xyz)!

## education & skills.

**University of British Columbia**, 2019 - 2023, B.Sc Candidate for Computer Science, Vancouver

**Skills:** Python, Go, TypeScript, Scala, JavaScript, Envoy,, Keras, TensorFlow, Flask, SumoLogic, Mongo, SQL

**Tools:** Jira, Confluence, Jenkins, Kubernetes, Docker, AWS, GCP, Azure, Git, Scrum Agile

## experience.

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

- Proposed and implemented a proof of concept service mesh with **Envoy** and **Istio** to break down a **Scala** monolith service into **Dockerized Go** microservices. Deployed through **Kubernetes** and **Jenkins**.
- 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.

**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 deployed on **Mongo Atlas**. **Dockerized Go** backend deployed on **AWS EC2**.

## personal projects.

**reflect**, current work in progress - *Independent Project* - [github.com/jackyzha0/reflect-nlp](https://github.com/jackyzha0/reflect-nlp)

- Building a digital wellbeing extension which asks users to reflect before visiting distracting sites.
- Trained an NLP model using self-collected survey data using **Keras**. Model API is served via **Flask** and deployed on **Heroku**. CI/CD pipeline done through GitHub webhooks and **CircleCI**.
- Actual extension built using **Typescript**. Working on creating a stats aggregation and data collection service using **Go** and **Mongo**.

**Speech2Braille**, 07/2017 - 05/2018 - *Canada Wide Science Fair* - [github.com/jackyzha0/nsound\\_git](https://github.com/jackyzha0/nsound_git)

- Created 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](https://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)