LUCY HAO

hao.lucyy@gmail.com | lhao03.github.io
linkedin.com/in/lucy-hao | github.com/lhao03

EDUCATION

University of British Columbia – cGPA: 3.90/4.33   Sep 2019 – May 2023
- 2nd year Bachelor of Science in Computer Science and minor in Biochemistry

WORK EXPERIENCE

Software Developer Co-op, Centre of Excellence for Prevention of Organ Failure   Jan 2021 – May 2021
- Redesigned a fragile natural language processing pipeline to be more robust to extract patient information from any type of clinical note. Implemented in Python using pandas, nltk, scispaCy, spaCy and regular patterns.
- Abstracted parts of pipeline to be able to generalize on any type of clinical note. Reduced encoding module codebase size by over **50%** while maintaining or increasing pipeline accuracy.
- Introduced algorithms to autocorrect optical character recognition errors for features of interest (FoI), increasing accuracy for an FoI by **5-10%.** Added a training module to automatically find the best pipeline parameters in training period. Achieved **~90%** validation accuracy on 100 unseen clinical notes.
- Gave weekly presentations to medical professionals, faculty members and data scientists to show progress on pipeline and request feedback.

Undergraduate Teaching Assistant, UBC Faculty of Science   Jan 2021 – Apr 2021
- Led **3** labs for CPSC 210 (Software Construction) of overall **20** students.
- Held office hours to help students learn about Test Driven Design, Java and Object Orientated programming. Invigilated, marked, and tested exam questions.

LEADERSHIP EXPERIENCE

Co-lead Software Developer, UBC Biomedical Engineering Student Team   Sep 2020 – now
- Co-leading the development of a cross-platform mobile app that aims to gamify the rehabilitation process for multiple sclerosis patients. Leading team of **5-10** students in developing the software component.
- Implemented workflows in Github Actions. Mobile app developed using Kotlin Multiplatform and backend developed using MongoDB and Express.

Director of Outreach and Technology, StarHacks   Sep 2020 – now
- Led outreach operations of the first iteration of StarHacks (female and nonbinary virtual hackathon), bringing in **800+** registrants and 350+ attendees. in the span of 3 months. Grew Instagram followers by 300% (414 to 1250+)
- Sent monthly newsletters with MailChimp and posted original content designed with Figma and Canva on Instagram and Twitter.
- Moderated Discord and set up Discord bots to remind hackers of events and automate role assignment.

PROJECTS

Dialogue, nwHacks 2021   Jan 2021
- Dialogue is a web app that connects seniors with youth volunteers with alike interests and similar language fluencies. Lead backend development of API built with Express and MongoDB. Implemented video calling with WebRTC, Socket.io and Peer.js Deployed on Heroku.

EcoEats, Finalist at cmd-f 2020   Mar 2020
- Lead programmer of group of **4**, developer an Android app in Java that utilizes Google Cloud Vision to allow users to take images of their foods to see the carbon footprint.
- One of the top 5 projects, awarded **Realtor Best Search Experience** and **Wolfram Award**.