

Lucy Hao

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Education

University of British Columbia

Bachelor of Science in Computer Science and minor in Biochemistry

Sep 2019 - May 2023

cGPA: 3.90/4.33

Work Experience

Software Engineer Intern

May 2021 - now

Microsoft - Garage Team

- The Garage internship offers a small number of talented students a unique opportunity to work with each other in teams, hack on contemporary technology, conduct customer research, design, and develop a product in 12-16 weeks.

Software Developer Co-op

Jan - May 2021

PROOF (Prevention of Organ Failure) Centre of Excellence

- 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. Helped publish a preprint on medRxiv.
- Introduced algorithms to auto-correct 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.
- Abstracted parts of pipeline to be able to generalize on any type of clinical note. Reduced encoding code-base size by over **50%** while maintaining or increasing pipeline accuracy. Achieved **91%** 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.

Computer Science Teaching Assistant

Jan - Apr 2021

University of British Columbia

- 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.

Extracurricular

Director of Outreach and Technology

Sep 2020 - now

StarHacks

- Led outreach operations of the first iteration of StarHacks (female and non-binary 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.

Co-lead Software Developer

Sep 2020 - now

UBC BEST

- Co-leading team of **5-10** students on the development of a cross-platform mobile app that aims to gamify the rehabilitation process for multiple sclerosis patients.
- Implemented workflows in GitHub Actions. Mobile app developed using Kotlin Multi-platform and backend developed using MongoDB and Express.

Speaking and Awards

- **Speaking:** JoytoJob Panel, StarHacks Workshop Host
- **Awards:** Finalist and Realtor Best Search Experience Award at cmd-f 2019, Voiceflow Award at nwHacks 2019