Lucy Hao

✉ hao.lucyy@gmail.com | 🔗 linkedin.com/in/lucy-hao | ⚙ lhao03 | 🖥 lhao03.github.io

Education

University of British Columbia   Sep 2019 - May 2023 (Expected)
Bachelor of Science in Computer Science and minor in Biochemistry   *cGPA: 3.90/4.33*

Work Experience

Microsoft - Garage   May 2021 - Aug 2021
Software Engineering Intern
- Collaborated with team of 6 interns to plan and develop a internal team requested feature in React, Redux and TypeScript to allow developers to efficiently and easily work with the Microsoft ecosystem.
- Conducted user research and used over **10+** responses to design first iteration of user interface. Presented technical architectural diagrams to the rest of the developers and developed proof of concepts to decide on technical design.
- Led development of user interface for Teams App and new feature for live production application, actively communicating with Program Manager intern and UX intern to seek feedback.
- Refactored Teams App code-base, removing over **500+** lines. Fixed critical bug freezing the Teams App and discovered bug within Graph Explorer and had the fix merged into the live production application.

PROOF (Prevention of Organ Failure) Centre of Excellence   Jan - May 2021
Software Developer Co-op
- Redesigned a fragile natural language processing pipeline 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.
- Reduced encoding code-base size by over **50%** while 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.

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

Projects

Dialogue | JavaScript, MongoDB, Express.js, WebRTC, Heroku, Git, Figma   nwHacks 2021
- Full-stack web application using Express.js and MongoDB for the backend and React for the frontend.
- Used MongoDB to store user's info and created algorithem to match users with similar interests.
- Implemented video calling functionality with socket.io, WebRTC in the browser. Deployed on Heroku.
- Average score of **80-90%** from peer judges.

EcoEats (Finalist) | Google Cloud Vision API, Java, Android, Git, Figma   cmd-f 2020
- Android app in Java that brings awareness to the carbon footprint of consumers' meals and advocates for more carbon-friendly products.
- Uses Google Cloud Vision API to analyze photos of food. Presented project to all participants and judges as finalists among **200+** hackers. Awarded Realtor Best Search Experience and Wolfram Award.

Extracurricular

- **Speaking**: JoytoJob Panel, Hydrangea Hacks Workshop Host, StarHacks Workshop Host, Citro Hacks Workshop Host, Hacking 4 Community Panelist
- **Community**: Director of Outreach and Technology at StarHacks, Marketing Coordinator at nwPlus, mentor at AIHacks 2020 and Superposition 2021, mentor for connect-f 2020