

Lucy Hao

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Education

University of British Columbia

B.Sc Combined Computer Science and Chemistry

Sep 2019 - May 2024 (Expected)

cGPA: 3.90/4.33

Research Experience

PROOF (Prevention of Organ Failure) Centre of Excellence

Software Developer Co-op

Jan - May 2021

Vancouver, Canada

- Redesigned a fragile natural language processing pipeline to extract patient information from any type of clinical note with pre-trained word embeddings. Implemented in Python using pandas, nltk, scispaCy, spaCy, and regular expressions.
- Reduced the encoding code-base size by over **50%** through abstraction while increasing pipeline accuracy. Achieved **91%** validation accuracy.
- Published: Chen, Y., Hao, L., Zou, V.Z., Hollander, Z., Ng, R.T., Isaac, K.V. Automated medical chart review for breast cancer outcomes research: a novel natural language processing extraction system. *BMC Med Res Methodol* 22, 136 (2022).

Teaching Experience

Systematic Program Design (CPSC 110)

Computer Science Teaching Assistant

Winter 2021

- Led labs, graded exams/problem sets, and taught concepts from functional programming and data driven programming in Racket.
- Received **90%+** evaluation score during Winter 2021 term.

Software Construction (CPSC 210)

Computer Science Teaching Assistant

Winter 2020, Summer 2021

- Led labs, invigilated and graded exams, and graded final projects, and taught concepts such as test driven design, design patterns and object oriented programming in Java.
- Received **perfect** evaluation score during Summer 2021 term.
- Received **80%+** evaluation score during Winter 2020 term.

Industry Experience

Capital One

Software Engineering Intern

Jun - Aug 2022

New York, United States

- Piloted use of AWS Device Farm to create end-to-end testing for Mobile App Verification (MAV).
- Wrote tests for Capital One mobile app using Java and Appium and Capital One website using Python and Selenium. Eliminated **100%** of unnecessary idling on AWS by using threads in test scripts.

Microsoft

Software Engineering Intern (Garage Program)

May - Aug 2021

Vancouver, Canada

- Collaborated with a team of 6 interns to plan and develop an internal team requested feature in React, Redux, and TypeScript which allowed developers to efficiently and easily try out the Microsoft Graph API.
- Presented technical architectural diagrams to developers and developed proof of concepts to decide on technical designs. Added static analysis tools and pre-commit hooks, saving time for PR reviews.
- Refactored the Teams App code-base, removing over **500+** lines. Found bug regarding different Microsoft account types within Graph Explorer and had the fix merged into the live production application.

Extracurricular

- Director of Outreach and Technology at StarHacks (2020-2022), Marketing Co-Director at nwPlus (2021-2022), Joytojob Panelist (2021), StarHacks Workshop Host (2021/2022), Citro Hacks Workshop Host (2021), Hydrangea Hacks Workshop Host (2021), Hacking 4 Community Panelist (2021), HackCamp Workshop Host (2021)