Lucy Hao

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Education

University of British Columbia   Sep 2019 - May 2024 (Expected)
B.Sc Combined Computer Science and Chemistry   *cGPA: 3.90/4.33*

Research Experience

PROOF (Prevention of Organ Failure) Centre of Excellence   Jan - May 2021
Software Developer Co-op   *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. Achieved **91%** validation accuracy.
- Refactored pre-existing code base and introduced code reusibility, reducing the number of lines of code by over **50%**.
- Published paper as second author: 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)   Winter 2021
Computer Science Teaching Assistant
- 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)   Winter 2020, Summer 2021
Computer Science Teaching Assistant
- 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.

Industry Experience

Capital One   Jun - Aug 2022
Software Engineering Intern   *New York, United States*
- Create end-to-end tests for Mobile App Verification (MAV) on AWS Device Farm.
- Wrote tests for Capital One 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   May - Aug 2021
Software Engineering Intern (Garage Program)   *Vancouver, Canada*
- Collaborated with a team of 6 interns to plan and develop a sandbox tool in React, Redux, and TypeScript that allows users to easily try out the Microsoft Graph API without technical set-up.
- Added static analysis tools and pre-commit hooks, saving time for PR reviews.
- Refactored the code-base and introduced functional programming concepts, removing over **500+** lines.
- Found bug in live Graph Explorer website and had the fix merged into the 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)*