Lucy Hao

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Education

University of British Columbia   Sep 2019 - May 2024 (Expected)
Bachelor of Science in Computer Science and Chemistry   *cGPA: 3.90/4.33*

Industry Experience

Microsoft   May - Aug 2021
Software Engineering Intern (Garage Program)
- 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.

Research Experience

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 expressions.
- Reduced the encoding code-base size by over **50%** through abstraction while increasing pipeline accuracy. Achieved **91%** validation accuracy on a hundred unseen clinical notes.
- Gave weekly presentations to medical professionals, faculty members, and data scientists to show progress on pipeline and request feedback.

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.
- Received **80%+** evaluation score during Winter 2020 term.

Publications

- 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).

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)*