

LUCY HAO

(+1) 403-401-3096
lhao03@student.ubc.ca
<https://lhao03.github.io>

EDUCATION	University of British Columbia <i>B.Sc. in Combined Computer Science and Chemistry</i> <ul style="list-style-type: none">GPA: 80%	Vancouver, Canada 2019 - 2025 (<i>expected</i>)
PUBLICATIONS AND POSTERS	<ol style="list-style-type: none">Zhang, W.; Guy, M. A.; Yang, J.; Hao, L.; Liu, J.; Hawkins, J.; Mustakis, I. G.; Monfette, S.; Hein, J. E. Leveraging GPT-4 to Transform Chemistry from Paper to Practice. <i>Digital Discovery</i> 2024. https://doi.org/10.1039/d4dd00248b.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. <i>BMC Medical Research Methodology</i> 2022, 22 (1). https://doi.org/10.1186/s12874-022-01583-z.Poster: AI-Driven Workflow Planning for Robotic Arms in Self-Driving Labs, Accelerate Conference 2024	
RESEARCH EXPERIENCE	UBC, Department of Chemistry Vancouver, British Columbia <ul style="list-style-type: none">Exploring self-consistent field (SCF) convergence of electronic structure methods.Advisor: Prof. Yan Wang UBC, Department of Chemistry Vancouver, British Columbia <ul style="list-style-type: none">Automating the optimization of high-performance liquid chromatography (HPLC) method development.Researched the application of Large Language Models (LLMs) and automated planners on generating workflows for self-driving labs.Advisor: Prof. Jason E. Hein PROOF Centre Vancouver, British Columbia <ul style="list-style-type: none">Utilized pre-trained word embeddings, uniquely generated regular expressions and OCR correction algorithm to extract information from structured electronic health records, achieving a validation set accuracy of 91% with minimal training data.Performed statistical analysis on results, and helped write the Methods, Results and Discussion sections of published paper.Advisors: Dr. Zsuzsanna Hollander, Prof. Raymond T. Ng, Prof. Dr. Kathryn Isaac	2024.09 - curr. 2024.05 - curr. 2021.01 - 2021.05
INDUSTRY EXPERIENCE	Capital One New York City, New York <ul style="list-style-type: none">Piloted the use of AWS Device Farm, creating end-to-end tests for Mobile App Verification for the Capital One app and website.Found and relayed five pain points of AWS Device Farm to upper level technical executives. Microsoft Vancouver, British Columbia <ul style="list-style-type: none">Aided in development of features for internally requested sandbox tool for the Microsoft Graph API.Helped troubleshoot bugs in browser-based sandbox tool and Microsoft Teams based sandbox tool, documenting fixes and possible solutions for unsolved bugs.	2022.06 - 2022.08 2021.05 - 2021.08
TEACHING ASSISTANTSHIPS	<ul style="list-style-type: none">CPSC 110, Systematic Program DesignCPSC 110, Systematic Program DesignCPSC 210, Software ConstructionCPSC 210, Software Construction	2022.08 - 2022.12 2021.08 - 2021.12 2021.07 - 2021.08 2020.01 - 2020.04

OTHER

- **Advisor**, UBC iGEM 2024.11 - curr.
- **Dry Lab Co-Lead and Wiki Lead**, UBC iGEM 2023.11 - 2024.11
- **Director of Marketing and Technology**, StarHacks 2020.09 - 2022.01
- **Director of Marketing**, nwPlus 2021.08 - 2022.03
- **Mentor**, nwPlus (connect-f) 2020.07 - 2021.04