Romina Mahinpei

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EDUCATION

University of British Columbia (UBC)   **09/2020 – 05/2024**
- B.Sc. in Honours Computer Science with a minor in Mathematics.
- Cumulative GPA: **94.9%**.

RESEARCH COURSES

Honours Thesis | CPSC 449   **09/2023 – Present**
- Investigating the potential of mixed precision arithmetics in speeding up numerical algorithms.
- Advised by Dr. Chen Greif of UBC's Computer Science Department.

Directed Studies | CPSC 448   **09/2023 – Present**
- Investigating the impact of randomization in auto-generated assessment questions on student performance.
- Advised by Dr. Steve Wolfman of UBC's Computer Science Department.

RESEARCH EXPERIENCE

Research Assistant | UBC Systopia Lab   **02/2022 – 01/2023**
- Conducted a user study to understand the current state of data workflows and identified potential applications of data provenance in simplifying those workflows.
- Designed, implemented, and tested the Model Card package for Tribuo, Oracle's open-source Java ML library, to allow users to create partially automated machine learning model documentations.
- Advised by Dr. Margo Seltzer of UBC's Computer Science Department.

Research Assistant | UBC Quantum Matter Institute   **05/2021 – 08/2021**
- Created heterostructures for longitudinal resistance measurements and operated the pipeline for collecting those measurements.
- Automated the visualization and categorization of the collected measurements within my team's data pipeline.
- Advised by Dr. Joshua Folk of UBC's Physics Department.

Research Assistant | UBC Undergraduate Research Opportunities   **10/2020 – 03/2021**
- Coded a Python implementation of the most recent deterministic model of weight loss, collected data by running simulations, and analyzed the data to investigate the effects of restricted caloric intakes on body weight.
- Shared my findings through a 15-minute presentation at the Multidisciplinary Undergraduate Research Conference (MURC 2021).
- Advised by Dr. Leah Edelstein-Keshet of UBC's Mathematics Department.

TEACHING EXPERIENCE

Operating Systems Teaching Assistant | UBC   **09/2023 – Present**
- Assisting students in CPSC 313, UBC's computer hardware and operating systems course.
- Holding weekly tutorials, hosting weekly office hours, and grading exams for the current semester.

Software Engineering Teaching Assistant | UBC   **09/2022 – 04/2023**
- Assisted students in CPSC 210, UBC's software construction and development course.
- Held two-hour long labs twice a week, hosted one-hour long office hours once a week, and graded midterms and final exams for two semesters.

Calculus Teaching Assistant | UBC   **09/2021 – 04/2022**
- Assisted students with calculus as a part of the Science One program, an immersive program that emphasizes integration of different scientific disciplines and ranks as UBC's highest level of first-year science.
- Held review sessions before assessments, hosted one-hour long office hours twice a week, and graded midterms and final exams for two semesters.

WORK EXPERIENCE

Software Engineering Intern | Microsoft Redmond Campus   **05/2023 – 08/2023**
- Interned as a software engineer for one of Xbox's data engineering teams.
- Defined metrics to track the availability of core streams owned by the data engineering team.
- Implemented the pipelines and Power BI reports to summarize and visualize the defined metrics.

Explore Intern | Microsoft Redmond Campus   **05/2022 – 08/2022**
- Interned as a program manager and software engineer for one of Xbox's services and operations teams.
- Defined a new feature aimed at improving the user experience and conducted a user study to collect feedback.
- Implemented and tested the data model, the backend infrastructure, and the API supporting the new feature.

COMMUNITY ENGAGEMENT

Internal Events Director | Women in Computer Science (WiCS)   **05/2023 – Present**
- Planning and organizing internal events, including study sessions and networking roundtables, for students who identify as women and are interested in CS.

Student Developer | Diversity in CS Project Hub   **05/2021 – 08/2021**
- Initiated the ISB Finances project, a financial website for educating students on finances through complied resources and a budgeting calculator, and collaborated with four UBC CS students to design and implement the website.

Student Interviewer | SciSection Podcast   **07/2020 – 01/2021**
- Conducted interviews with scientists from various backgrounds to discuss the daily applications of science and edited the interviews before publishing to the podcast.

UNDERGRADUATE ARTICLES

Mahinpei, R. (2020a). **Minimizing the use of Polyethene Inside Paper Coffee Cups**. *STEM Fellowship Journal*, *6*(1), 60–68. https://doi.org/10.17975/sfj-2020-011.

Mahinpei, R. (2020b). **A Comparative Analysis of the Gini index**. *STEM Fellowship Journal*, *6*(1), 34–52. https://doi.org/10.17975/sfj-2020-010.

HIGHLIGHTED AWARDS

Trek Excellence Scholarship | Institutional Award
- Recipient of UBC's one-time Trek Scholarship in 2021, 2022, and 2023.
- Awarded every year to domestic UBC students in the top 5% of their undergraduate year, faculty, and school.

Trevor Linden Scholarship | Provincial Award
- Recipient of British Columbia's (BC) one-time Trevor Linden Scholarship in 2020.
- Awarded to four BC students entering their first year of post-secondary based on academic standing and exceptional community contributions.

Schulich Leader Scholarship | National Award
- Recipient of Canada's most coveted four-year undergraduate STEM scholarship in 2020.
- Awarded every year to a total of 100 Canadian students based on academic performance and leadership potential, and community involvement.