# Romina Mahinpei

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## EDUCATION

**M.S.E. in Computer Science**                                        **2024 – 2026**
Princeton University                                                   GPA: 4.0 / 4.0

**B.Sc. in Honours Computer Science with a Mathematics Minor**        **2020 – 2024**
University of British Columbia (UBC)                                    GPA: 4.0 / 4.0

## PUBLICATIONS

1. Ivan Orozco Vasquez\*, **Romina Mahinpei**\*, Noureddine Elouazizi, Cristina Conati. 2025. *An Emergent Bottom-Up Categorization of Students' LLMs Usage in an Undergraduate Research Course*. [Paper]. Artificial Intelligence in Education (AIED 2025). Lecture Notes in Computer Science, Volume 15881. DOI: 10.1007/978-3-031-98462-4_17. [link]

2. Adam Craig Pocock, Joseph Wonsil, **Romina Mahinpei**, Jack Sullivan, Margo Seltzer. 2025. *Provenance Design and Evolution in a Production ML Library*. [Poster]. CODEML@ICML25. [link]

3. **Romina Mahinpei**\*, Iris Xu\*, Steven Wolfman, and Firas Moosvi. 2025. *A Generalized Framework for Describing Question Randomization*. [Paper]. In Proceedings of the 2025 ACM Conference on International Computing Education, Volume 2 (ICER 2025). DOI: TODO. [link]

4. **Romina Mahinpei**\*, Iris Xu\*, Steven Wolfman, and Firas Moosvi. 2024. *A Generalized Framework for Describing Question Randomization*. [Poster]. In Proceedings of the 55th ACM Technical Symposium on Computer Science Education, Volume 2 (SIGCSE TS 2024). DOI: 10.1145/3626253.3635599. [link]

5. **Romina Mahinpei**, Chen Greif. 2024. *Mixed Precision MINRES*. [Paper]. SIAM Undergraduate Research Online, Volume 17 (SIURO). Society for Industrial and Applied Mathematics. DOI: 10.1137/24s1678489. [link]

## AWARDS

**McGraw Center for Teaching & Learning Fellowship | Princeton University**        **2024**
- Awarded for the 2024-2025 academic year to support the research, design, and development of Princeton University's STEM pedagogical resources.

**Academic Award of Excellence | Department of Computer Science, UBC**        **2024**
- Awarded to the student with the highest graduating average of the B.Sc. in Honours Computer Science.

**Markus Meister Memorial Prize | Department of Computer Science, UBC**        **2024**
- Awarded to the graduating student with the highest standing in the final year of the B.Sc. in Computer Science.

**Trek Excellence Scholarship for Continuing Students | UBC**        **2021-2023**
- Awarded yearly to domestic undergraduate students in the top 5% of their year, faculty, and school.

**Schulich Leader Scholarship | The Schulich Foundation**        **2020**
- Four-year undergraduate STEM scholarship awarded every year to a total of 100 Canadian high school seniors based on academic performance, leadership potential, and community involvement.

## RESEARCH EXPERIENCE

**[Humans & Machines Lab](#)** | **Dr. Manoel Horta Ribeiro** | **Princeton University**     **01/2025 – Present**
- Studying the potential of large language models (LLMs) as companions to teaching assistants for grading and feedback provision tasks in theoretical, proof-based courses.
- Studying the long-term influence of YouTube's recommendation algorithm on public perceptions of veganism.

**[Human-AI Interaction Lab](#)** | **Dr. Cristina Conati** | **UBC**     **01/2024 – 08/2025**
- Studied students' self-reported LLM usage patterns in an undergraduate research course and developed a categorization of students' LLM usage patterns.
- Studied the potential of collaborative filtering algorithms in providing personalized sets of practice questions in automated assessment systems using student performance data.

**[Scientific Computing Lab](#)** | **Dr. Chen Greif** | **UBC**     **05/2023 – 05/2024**
- Studied the potential of mixed precision arithmetic as an efficient preconditioning strategy for solving saddle-point linear systems using the Minimal Residual (MINRES) method while maintaining accuracy.
- Proposed, implemented, and compared the speed-up of two mixed precision variants of MINRES in CUDA across a range of saddle-point linear systems arising from fluid dynamics.

**[Systopia Lab](#)** | **Dr. Margo Seltzer** | **UBC**     **01/2022 – 01/2023**
- Studied the current state of data workflows across users from academia and industry and identified ways in which data provenance could simplify those workflows.
- Designed, implemented, and tested the Model Card package for [Tribuo](#), Oracle's open-source Java ML library, to allow Tribuo users to create partially automated machine learning model documentation.

## TEACHING EXPERIENCE

**Introductory Machine Learning | Princeton University**     **09/2024 – Present**
- Assisting students in COS 324, Princeton's introductory machine learning course.
- Hosting one-hour-long office hours once a week, holding one-hour-long tutorials once a week, creating exam questions, and completing administrative tasks as the course's head teaching assistant.

**Operating Systems | UBC**     **09/2023 – 04/2024**
- Assisted students in CPSC 313, UBC's computer hardware and operating systems course.
- Hosted one-hour-long office hours once a week, held one-hour-long tutorials once a week, managed the team of teaching assistants responsible for creating randomized assessment questions using the PrairieLearn system.

**Software Engineering | UBC**     **09/2022 – 04/2023**
- Assisted students in CPSC 210, UBC's software construction and development course.
- Hosted one-hour-long office hours once a week, held two-hour-long labs twice a week, and graded exams.

**Differential & Integral Calculus | UBC**     **09/2021 – 04/2022**
- Assisted students in differential and integral calculus in Science One, an immersive program emphasizing the integration of different scientific disciplines and ranking as UBC's highest level of first-year science.
- Hosted one-hour-long office hours twice a week, held exam review sessions, and graded exams.

## WORK EXPERIENCE

**Software Engineering Intern | Microsoft**     **06/2025 – 08/2025**
- Interned as a software engineer for one of Xbox's **AI engineering** teams.
- Implemented a context-aware chat participant for the Visual Studio Code Copilot to assist developers in partner teams with using our libraries integrating data experimentation features into their codebases.

**Software Engineering Intern | Microsoft**     **06/2024 – 08/2024**
- Interned as a software engineer for one of Xbox's **data experimentation** teams.

- Implemented new Semantic Kernel plugins for the team's Copilot, defined metrics to evaluate the success of the plugins, and created a Power BI report to summarize and visualize the defined metrics.

**Software Engineering Intern | Microsoft**                                                **06/2023 – 08/2023**
- Interned as a software engineer for one of Xbox's **data engineering** teams.
- Defined metrics to track the availability of core streams and implemented the pipelines and a Power BI report to summarize and visualize the defined metrics.

**Software Engineering Intern | Microsoft**                                                **06/2022 – 08/2022**
- Interned as a software engineer for one of Xbox's **services and operations** teams.
- Defined and implemented a new feature to personalize users' gaming experiences.