Rachel Kim

Education

Carnegie Mellon University

Pittsburgh, PA, USA

PhD: Societal Computing, School of Computer Science

Aug 2024 - Present

- Advised by Professor Hoda Heidari, Professor Rayid Ghani
- Select Courses: Responsible Artificial Intelligence, Applied Research Methods

University of Toronto

Toronto, ON, Canada

HBSc: Computer Science Specialist, Mathematics Major

Sep 2020 - Jun 2024

— Graduated with High Distinction

Research Experience

Carnegie Mellon University

Pittsburgh, PA, USA

Research Assistant, advised by Professor Hoda Heidari, Professor Rayid Ghani

Aug 2024 - Present

- Conducting research on artificial intelligence (AI) audits and assurances
- Designing and conducting interviews and performing a comprehensive literature review

Computational Social Science Lab, University of Toronto

Toronto, ON, Canada

Research Assistant, advised by Professor Ashton Anderson

Jun 2021 - Oct 2024

- Conducted research on understanding political and public policy-related discussions on online platforms
- Extracted stances, topics, and frames from millions of Reddit comments and news articles
- Processing and analyzing Reddit comments and news articles in Python using jupyter, pandas, pyspark, nltk, gensim, Hugging Face transformers, and langchain; visualizing data using matplotlib, seaborn

University of Toronto

Toronto, ON, Canada

Research Assistant, advised by Professor Peter Marbach

May 2023 - Aug 2023

- Conducted research on understanding influence on social media, applying and testing a pre-existing theoretical model of communities, their structural properties, and influence on real-world Twitter data
- Leveraged clustering algorithms, principal component analysis, and statistical tests
- Processed and analyzed a MongoDB database of > 100,000 tweets in Python; visualized data using matplotlib, seaborn

BMO Lab, University of Toronto

Toronto, ON, Canada

Machine Learning Research Assistant

Oct 2020 - Mar 2021

- Contributed to research efforts in the intersection between art, performance, emerging technologies, and artificial intelligence (AI)
- Read and summarized research papers on BigGAN, CLIP, and DALL-E
- Preprocessed and cleaned play scripts using regex; performed experiments using pytorch

Publications

The "Who", "What", and "How" of Responsible AI Governance: A Systematic Review and Meta-Analysis of (Actor, Stage)-Specific Tools

Blaine Kuehnert*, Rachel M. Kim*, Jodi Forlizzi, Hoda Heidari

Proceedings of the ACM Conference on Fairness, Accountability, and Transparency (FAccT), 2025.

Capturing Dynamics in Online Public Discourse: A Case Study of Universal Basic Income Discussions on Reddit

Rachel M. Kim, Veniamin Veselovsky, Ashton Anderson

Proceedings of the International AAAI Conference on Web and Social Media (ICWSM), 2025.

The Agenda-Setting Function of Social Media

Rachel M. Kim, Ashton Anderson

Proceedings of the ACM Web Conference (WWW), 2025. Oral Presentation.

Posters and Presentations

Capturing Dynamics in Online Public Discourse: A Case Study of Universal Basic Income Discussions on Reddit

Rachel Kim, Veniamin Veselovsky, Ashton Anderson

Poster at the International Conference on Computational Social Science (IC2S2), Jul 2024

Quantifying Public Discourse on Policy Issues: A Case Study of Universal Basic Income Discussions on Reddit

Rachel Kim, Veniamin Veselovsky, Ashton Anderson

Oral Presentation at the International Conference on Computational Social Science (IC2S2), Jul 2022

Assessing the Impacts of COVID-19 on Reddit

Veniamin Veselovsky, Rachel Kim, Ashton Anderson

Oral Presentation at the International Conference on Computational Social Science (IC2S2), Jul 2022

Awards and Honours

Postgraduate Scholarship-Doctoral (PGS D), NSERC (\$120,000)

2025

- Selected on the basis of research ability and potential and relevant experience and achievements obtained within and beyond academia
- Highly ranked applicant; declined the Canada Graduate Scholarship–Doctoral (CGS D) to hold the PGS D instead

Canada Graduate Scholarship-Doctoral (CGS D), NSERC (\$120,000)

Declined

— Selected on the basis of research ability and potential and relevant experience and achievements obtained within and beyond academia

Student Travel Award, ACM Web Conference (WWW) (\$500)

2025

Daniel Berlin Scholarship, University of Toronto (\$1357.15)

2024

— Awarded to a computer science student with an interest in artificial intelligence

Dean's List Scholar, University of Toronto

2020-2024

— Awarded to students with a cGPA of 3.50 or higher

The Marion Edith Binning Scholarship, University of Toronto (\$1000)

2023

— Awarded to students with a cGPA of 3.50 or higher

Undergraduate Student Research Award, NSERC (\$7500)

2023

 Awarded annually to 250 natural science and engineering students at the University of Toronto on the basis of academic record and research aptitude

The Robert C. Dowsett Scholarship, University of Toronto (\$1000)

2023

— Awarded to students with a cGPA of 3.50 or higher

The Professor R. K. Arnold Scholarship, University of Toronto (\$1000)

2021

— Awarded to students with a cGPA of 3.50 or higher

Laidlaw Undergraduate Research and Leadership Scholarship, Laidlaw Foundation (\$10,000)

2021

- Awarded annually to 25 first and second-year students at the University of Toronto on the basis of passion, drive, enthusiasm and ambition for research and leadership
- C. David Naylor Scholarship, University of Toronto (\$20,000)

2020

— Awarded annually to 10 students entering the University of Toronto on the basis of demonstrated leadership and academic excellence

President's Scholar of Excellence, University of Toronto (\$10,000)

2020

— Awarded annually to 150 students entering the University of Toronto on the basis of academic excellence

Teaching Experience

University of Toronto

Toronto, ON, Canada

Teaching Assistant, CSC258: Computer Organization

Winter 2023, Winter 2024

Industry Experience

TELUS Toronto, ON, Canada

 $Software\ Development\ Intern,\ Architecture\ Practice\ Enablement\ (ArchPE)\ Team\ Sep\ 2022\ -\ Dec\ 2022\\ --- Automated\ KPI\ calculations\ and\ dashboards\ through\ Google\ Data\ Studio\ and\ JavaScript,\ saving\ >\ 1\ month\ of\ time\ across\ the\ ArchPE\ Team$

- Added capabilities to Backstage software templates used internally by > 50 teams using JavaScript, Docker, Google Cloud Platform (GCP), and Git
- Designed and developed APIs using Postman and PHP

Community Involvement and Service

| Reviewer, ACM Web Conference (WWW) 2025 | 2024 |
|---|-------------|
| Student Rep., Computer Science Undergrad Affairs Committee, University of Toronto | 2022 - 2024 |
| Project Management Leader, makesense Mexico | 2022 |
| Director of Academic Events, Computer Science Student Union, University of Toronto | 2021-2022 |
| Social Media Coordinator, World University Service of Canada, University of Toronto | 2020-2022 |
| First-Year Representative, Computer Science Student Union, University of Toronto | 2020-2021 |
| Korean-English Translator Volunteer, Compassion Korea | 2017 - 2021 |