

# Rachel Kim

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## Education

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### Carnegie Mellon University

*PhD in Societal Computing*

Pittsburgh, PA, USA

Aug 2024 - Present

### University of Toronto

*Honours BSc: Computer Science Specialist, Mathematics Major*

— Graduated with High Distinction

Toronto, ON, Canada

Sep 2020 - Jun 2024

## Research Experience

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### Computational Social Science Lab, University of Toronto

*Research Assistant*, advised by Professor Ashton Anderson

Toronto, ON, Canada

Jun 2021 - Present

- Research projects on understanding political and public policy-related discussions on online platforms
- Extracting stances from and leveraging topic modelling on Reddit comments
- Applying Reddit community embeddings to quantify the impact of a community's age, gender, partisan leaning, and affluence levels on opinions and discussions surrounding public policies
- Processing and analyzing millions of Reddit comments in Python using jupyter, pandas, pyspark, nltk, gensim, Hugging Face transformers, and langchain; visualizing data using matplotlib, seaborn

### University of Toronto

*Research Assistant*, advised by Professor Peter Marbach

Toronto, ON, Canada

May 2023 - Aug 2023

- Research project on understanding influence on social media
- Applied and tested a pre-existing theoretical model of communities, their structural properties, and influence on real-world Twitter data to understand influence on social media
- 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

*Machine Learning Research Assistant*

Toronto, ON, Canada

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

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### Non-Archival Venues

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

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<i>Daniel Berlin Scholarship</i> , University of Toronto	2024
<i>Dean's List Scholar</i> , University of Toronto	2020 - 2024
<i>The Marion Edith Binning Scholarship</i> , University of Toronto	2023
<i>NSERC Undergraduate Student Research Award</i> , NSERC	2023
<i>The Robert C. Dowsett Scholarship</i> , University of Toronto	2022
<i>The Professor R. K. Arnold Scholarship</i> , University of Toronto	2021
<i>Laidlaw Undergraduate Research and Leadership Scholarship</i> , Laidlaw Foundation	2021
<i>C. David Naylor Scholarship</i> , University of Toronto	2020
<i>President's Scholar of Excellence</i> , University of Toronto	2020

## Teaching Experience

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<b>University of Toronto</b>	Toronto, ON, Canada
<i>Teaching Assistant</i> , CSC258: Computer Organization	Winter 2023, Winter 2024

## Industry Experience

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<b>TELUS</b>	Toronto, ON, Canada
<i>Software Development Intern</i> , 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

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<b>Computer Science Undergrad Affairs Committee</b> , University of Toronto	Toronto, ON, Canada
<i>Student Representative</i>	Sep 2022 - Apr 2024
— Representing the undergraduate voice in weekly meetings discussing academic policy and services that impact > 1,200 students with professors and departmental staff	

<b>makesense Mexico</b>	Mexico City, Mexico
<i>Project Management Leader</i>	Jul 2022 - Aug 2022
— Worked with Nidaria, an organization in Mexico City that collects organic waste from customers' homes and converts it into farm animal feed for local farmers	
— Recruited and co-led a group of seven volunteers to interview customers, created a video on Nidaria's impact, and hosted a Sustainability Festival with an attendance of > 40	
— Succeeded in getting an additional 43% of the existing customer base to indicate high interest in subscribing to Nidaria	

<b>Computer Science Student Union</b> , University of Toronto	Toronto, ON, Canada
<i>Director of Academic Events</i>	Sep 2020 - May 2022
— Led events like tea time with professors, research seminars, and study sessions for > 1,200 computer science students	

<b>World University Service of Canada</b> , University of Toronto	Toronto, ON, Canada
<i>Social Media Coordinator</i>	Sep 2020 - Apr 2022
— Supported the acclimation to Canada for two refugee students as they started their studies at the University of Toronto	
— Raised awareness of refugee and education issues	

**Compassion Korea**

*Korean-English Translator Volunteer*

Remote

Sep 2017 - Apr 2021

— Translated letters between sponsors and sponsored children weekly from Korean to English and vice versa