# Min Seo

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#### **EDUCATION**

University of Waterloo, ON, Canada

# **Bachelor of Arts (Honours)**

Psychology, Honours Mathematics, Joint Honours Sep 2020 - Aug 2024

#### RESEARCH INTERESTS

- Designing Accessible K-12 Mathematics Curriculum
- Reasoning & Decision-Making Processes in Mathematical Learning
- Examining the Roles of Self-esteem and Self-efficacy of Students in Learning Mathematics
- Teacher Education: Transferrable Impressions of Mathematics
- Supporting Students with Various Learning Needs in Mathematics Education

#### RESEARCH EXPERIENCES

**Social Development Lab, University of Waterloo** – *Directed Studies Student*Dec 2023 – Current

Worked with Serena McDiarmid, Ph.D. student, and Dr. Heather Henderson, Principal Investigator, at the Social Development Lab (SDL).

<u>Validation of Waterloo Region Belonging Survey – Middle Childhood Ver.</u> <u>Dec 2023 – Current</u>
The Waterloo Region Belonging Survey – Middle Childhood Version (WRBS-Middle) is designed to measure children's (ages 8 to 13) sense of belonging in non-school contexts.

- Examined the internal consistency, validity, and factor structure of the WRBS-Middle
- Wrote a formal report on the validation processes and results

Reasoning & Decision Making Lab, University of Waterloo – Research Assistant Jun 2022 – Current Worked with Kaiden M Stewart, Ph.D. candidate, and Dr. Jonathan Fugelsang, Principal Investigator, at the Reasoning and Decision Making Lab (RDML).

# Bet on Yourself (BOY)

Jan 2023 - Current

BOY is an in-person study that investigates how people process information. A series of logical problems were presented for each participant to solve, and they were asked to "bet on themselves" by rating their confidence level on each response.

- Recruited and provided participation credits to participants on SONA (psychology research experiences online platform)
- Oriented research participants to the study setting for data collection
- Participated in the online session of data cleaning & data analysis using R

• Proofread and reviewed the study before running the experiment

# Thinking in Action (TIA)

Jan 2023 - Nov 2023

TIA is an in-person study investigating how people process information when reasoning and making decisions.

- Recruited and provided participation credits to participants on SONA
- Oriented research participants to the study setting for data collection
- Proofread the study information

## **Cueing Confidently (CC)**

Jan 2023 - Nov 2023

CC is an in-person study examining how people think and reason.

- Participated in SONA researcher training
- Oriented research participants to the study setting for data collection
- Recruited and provided participation credits to participants on SONA

**Faculty of Education, Wilfrid Laurier University –** Research Assistant

Jun 2022 - Current

Worked with Dr. Jennifer Holm in the field of mathematics education.

# **Teachers' Use of Mathematics Apps**

Sep 2022 – Mar 2023

This qualitative study aimed to examine teachers' experiences using math apps, mainly *Dreambox* and *Prodigy*, in their classrooms.

- Conducted a literature search and drafted an informal report of the results
- Participated in the research design meetings

#### **CONFERENCES & PRESENTATIONS & TALKS**

How to Become an Ally for Colleagues and Participants in the 2SLGBTQ+ Community

Feb 2024

A 30-minute presentation on inclusive practices at the monthly staff meeting of the Safer Use Program, House of Friendship.

- Looking at homelessness in trans\* community through a trauma-informed lens
- Building a welcoming safer use space
- Safety is important, and it looks different for everyone
- Intention vs. impact

# OTHER PROJECT

**Learning & Teaching of Mathematics –** *Coordinator, Founder* 

Nov 2023 - Current

Collaborated with other coordinators to create an online platform for learning & teaching of K-12 mathematics to reduce students' learning barriers and equip teachers better to guide students with additional learning challenges.

#### **INDUSTRY EXPERIENCES**

Math Maestro - Director. Founder

Jan 2024 - Current

Provided math instructions & lessons for groups and individuals.

- Created initial assessment using LaTeX for the group placements and curriculum development
- Designed lesson materials based on the Ontario grade 11 mathematics curriculum
- Assessed students' progress by developing tests

**Safer Use Program, House of Friendship** – *Harm Reduction Worker* 

Nov 2023 - Current

Safer Use Program (SUP) is an urgent medical care site within a local shelter in Waterloo, ON.

- Encouraged safer use practices.
- Shared harm reduction information with participants who regularly use substances.
- Facilitated a judgement-free environment by practicing trauma-informed care.
- Provided verbal and medical interventions such as injectable naloxone during incidents of accidental drug poisoning.

Mathematics Tutor Oct 2019 – Dec 2023

Provided tutoring for curriculum-based and competition mathematics for students ranging from grade 7 to first-year university, both in-person and online.

- Developed lesson materials and mock tests to fit each student's learning needs
- Offered free/pay-what-you-can tutoring for students with financial and learning challenges

Centre for Education in Mathematics and Computing – *Math Circles Assistant* Sep 2022 – Dec 2022

The Centre for Education in Mathematics Computing (CEMC) is housed within the Faculty of Mathematics at the University of Waterloo.

- Designed, assisted, and delivered CEMC Math Circles in-person and online for grade 6, 7, and 8 students to enrich their skills and interests in mathematics.
- Designed and delivered the in-person version of CEMC Math Circles for grade 6-8 students
- Assisted online delivery of CEMC Math Circles
- Supported the organization of grade 9-12 CEMC Math Circles
- Proofread the Beaver Computing Challenge
- Participated in the Canadian Senior and Intermediate Contests marking sessions

# **Global Affairs Canada** – *Technical Advisor, Data Innovation*

Nov 2021 – Dec 2021

Global Affairs Canada (GAC) manages Canada's diplomatic relations, promotes international trade and provides consular support.

- Moved GAC's data action plan forward by developing a SharePoint naming convention and a thematic list
- Participated in daily meetings on MS Teams

# LEADERSHIP & COMMUNITY INVOLVEMENTS

# **University of Waterloo Orchestra** – *Violist*

Jan 2024 - Current

Participate in weekly rehearsals to prepare for an end-of-the-term concert.

- Beethoven Symphony No. 6
- Grieg Piano concerto in a minor
- Weber, Overture to Der Freischütz

#### The Centre for Addiction and Mental Health – NYAC Member

Jun 2021 - Current

National Youth Action Council (NYAC) comprises a community of passionate youth mental health advocates across Canada.

Participated in research, service planning and education opportunities at CAMH

 Facilitated an affirming environment to talk about mental health and substance use challenges

# **LIFT Youth Experts Collective** – *Youth Advisor*

Sep 2021 - Nov 2023

LIFT YEC is a youth committee to advise on the Individual Placement and Support (IPS) program at the Centre for Addiction and Mental Health.

- Participated in monthly virtual meetings to advise services and research project designs
- Drafted youth-friendly materials to explain the research project on the IPS program
- Advised on the materials to train staff members of youth hubs across Canada on the education/employment support program

The Glow Centre for Sexual and Gender Diversity – *Trans Equity Director*Jan 2023 – Aug 2023

The Glow Centre is the oldest-running university-based 2SLGBTQ+ group in Canada.

- Ensured that trans\* students' voices were heard
- Advocated for the resolutions to the issues trans\* students at the University of Waterloo were facing
- Maintained the Trans Resource Library

Waterloo Ready Mentorship, Math Orientation – Peer Mentor, Leader Jun 2021 – Aug 2021

The Waterloo Ready Mentorship program supports first-year students in transitioning smoothly into their first year at the University of Waterloo.

• Facilitated weekly hangouts for 30 first-year math students

# The Women's Centre, University of Waterloo- Volunteer

Sep 2020 - Apr 2021

The Women's Centre aims to provide a positive and supportive environment on campus for all women and trans\* people.

- Received training to provide peer support for marginalized individuals
- Organized and supported events
- Provided feedback on trans\* inclusion.

# **Youth Committee, Friends of Ruby –** *Committee Member*

Feb 2020 - Jan 2021

Friends of Ruby is an organization dedicated to the progressive well-being of 2SLGBTQ+ youth (aged 16-29) through mental health, social, and housing services.

- Attended staff training and meetings to obtain general information about the organization
- Organized bi-weekly meetings to develop & manage programs for 2SLGBTQ+ youth
- Participated in discussions with the head directors of the organization
- Communicated with youth to hear their needs
- Documented outcomes of projects and future suggestions in an annual report

# **Montgomery's Inn Culinary Arts Projects** – *Youth Mentor*

Oct 2019 - Feb 2020

Montgomery's Inn is a historic museum owned and operated by the City of Toronto.

- Mentored 20 high school students
- Provided support with safety training & tours around the inn

- Managed a pollinator garden
- Guided students to follow cooking instructions for full-course meals

# **Homework Club, Etobicoke Collegiate Institute** – *Volunteer Tutor*

Sep 2017 - Jan 2020

The Homework Club at ECI provides homework help to grade 9-12 students in all subject areas.

 Provided tutoring for all STEM subjects including math, biology, chemistry, physics, computer science, and introductory kinesiology

# **Youth-Police Dialogues, The 519** – *Volunteer*

Oct 2019 - Dec 2019

Youth-Police Dialogues are conversations between a group of 15 2SLGBTQ+ youth and two queer police officers.

- Actively discussed the impacts of the police force on marginalized communities
- Provided feedback to the chief of Toronto police officers

# Mathletes, Etobicoke Collegiate Institute - Club President

Sep 2017 - Jun 2019

The Mathletes at ECI provides a space for mathematical growth and enrichment for high school students.

- Delivered lessons twice a week for 20 students
- Co-designed a curriculum based on the contests held by the Center for Education in Mathematics and Computing (CEMC)

## **Runnymede Healthcare Centre** – *Volunteer*

Jan 2018 - Jan 2019

Runnymede Healthcare Centre is a dynamic 206-bed rehabilitation and complex continuing care hospital in Toronto.

- Communicated effectively with patients to provide physical & emotional support
- Assisted activation therapists to run weekly patient activation programs
- Provided support to receptionists with any needs of the healthcare centre
- Contributed to restricting visits in cases of epidemics
- Delivered Korean-English translation when requested by patients

#### TEACHING INTERESTS

- Introductory Psychology
- Mathematics Education
- Basic Research Methods
- Mathematical Logic
- Calculus & Introductory Real Analysis
- Introductory Algebra & Linear Algebra
- Elementary Number Theory

#### **AWARDS & HONOURS & GRANTS**

Piquard Family Award, University of Waterloo (\$1,200)  Kay and Stuart Nicol Scholarship, University of Waterloo (\$2,500)  University of Waterloo Merit Scholarship, University of Waterloo (\$1,000)	2022 2022

#### **TECHNICAL SKILLS**

- Programming Languages: C, Python, Racket, Scheme, R, LaTeX, Turing, Java
- Languages: English, Korean
- Data Analysis Tools: PowerBI, SPSS, RStudio

#### PROFESSIONAL DEVELOPMENT

- Certification of Completion in the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans Course on Research Ethics (TCPS 2: CORE)
- Certification in Standard First Aid with CPR-C
- Certification in Trauma-Informed Care (TIC)
- Certification in Personal Health Information Privacy Training (PHIPA)

# PROFESSIONAL MEMBERSHIPS & AFFILIATIONS

- Member of the Canadian Mathematics Education Study Group (CMESG)
- Member of the International Group for the Psychology of Mathematics Education (PME)
- Student Affiliate of the Canadian Psychological Association (CPA)
- Student Member of the Canadian Mathematical Society (CMS)
- Associate Member of the Korean Psychological Association (KPA)
- Member of the Psychology Equity, Diversity, and Inclusion (EDI) Working Group at the University
  of Waterloo
- Member of Spectra, the Association for LGBT Mathematicians