ANISHA KHOSLA

Mailing address:	3888 Duke of York Blvd, Unit 2734
	Mississauga, Ontario L5B 4P5
Phone:	+1 647-822-0510
Email:	anisha.khosla@mail.utoronto.ca, akhosla@research.baycrest.org

EDUCATION

Ph.D. Cognitive Neuroscience   **September 2019 – Present**
University of Toronto, Toronto, ON, Canada
Co-Advisors: Dr. Jennifer D Ryan and Dr. Morris Moscovitch

M.A. Cognitive Neuroscience   **September 2019 – September 2019**
University of Toronto, Toronto, ON, Canada
Co-Advisors: Dr. Jennifer D Ryan and Dr. Morris Moscovitch
Thesis: Path integration using eye and hand movements

B.Sc. Honours Psychology, Neuroscience, & Behaviour   **September 2014 – April 2018**
McMaster University, Hamilton, ON, Canada
Overall GPA: 3.84/4.00
Thesis: Conflict Adaptation – The role of stimulus type and stimulus dimensions in the transfer of adaptive processes

RESEARCH EXPERIENCE

Graduate Student   **September 2018 – Present**
University of Toronto and Rotman Research Institute at Baycrest Health Sciences
Co-Advisors: Dr. Jennifer D. Ryan and Dr. Morris Moscovitch
- Study the link between memory and viewing behaviour
- Study how processes used to update whole-body position during navigation are also required to update eye and hand position
- Design and program eye-tracking and tablet experiments using Experiment Builder by SR Research and Python respectively
- Wrangle data, conduct statistical analyses, and produce publication-ready visualizations in R and Python
- Train undergraduate volunteers to assist with data collection and supervise them for project courses

Research Assistant at Shedden Lab   **January 2016 – April 2018**
McMaster University
Advisor: Dr. Judith M Shedden, Professor, Department of Psychology, Neuroscience, & Behaviour
- Investigated when and how cognitive control generated from a conflict in one task can be transferred to conflict in another task
- Led study design for a series of five complementary experiments, collected data from ~200 participants in 6 months, analyzed data and reported our findings

Research Assistant at Milliken Lab   **January 2017 – April 2018**
McMaster University
Advisor: Dr. Bruce Milliken, Professor, Department of Psychology, Neuroscience, & Behaviour
- Compared different types of subjective estimates used in studies of visual imagery, and showed that trial-by-trial subjective rating predict effects reliant on imagery to a greater extent than the widely used vividness of visual imagery questionnaire (VVIQ)
- Contributed creative insight to the overall study design, data collection, and interpretation of findings from the study.

Research Assistant at Neurotechnology and Neuroplasticity Lab   **July 2017 – April 2018**
McMaster University
Advisor: Dr. Suzanna Becker, Professor Department of Psychology, Neuroscience, & Behaviour
- Investigated the effects of the complex dietary supplement, developed by Dr. David Rollo, on hippocampal volume and depressive symptoms in models of Alzheimer's disease
- Conducted a battery of behavioural tests on triple transgenic mouse models of Alzheimer's disease and scored data from behavioral tests and tissue samples (e.g. hippocampal volume) using ImageJ

Research Assistant   **May 2017 – August 2017**
Shedden Lab & Motion Simulation Lab, McMaster University
Advisor: Dr. Judith M Shedden, Associate Professor, Department of Psychology, Neuroscience, & Behaviour
- Studied age differences in navigation strategies and age differences in multisensory integration
- Assisted with data collection using Electroencephalography (EEG) and tested participants in the motion simulator
- Redesigned the lab website (WordPress)

PRESENTATIONS & TALKS

Khosla*, Moscovitch, Ryan (2020). *Path integration using eye and hand movements. **Poster presentation at the Cognitive Neuroscience Society (CNS)**.*

Khosla*, Moscovitch, Ryan (2019). *Path integration using eye movements. **Oral presentation at the Rotman Research Institute**.*

Khosla*, Legere, Cadman, O'Malley, Shedden (2018). *Conflict Adaptation: the role of conflict type and stimulus dimensions in the transfer of adaptive processes. **Poster presentation at the Psychonomic Society's 3rd International Meeting**.*

Khosla*, Cochrane, Milliken (2018). *Metacognition of visual imagery: how subjective estimates of imagery vividness modulate an imagery effect. **Poster presentation at the 47th Annual Lake Ontario Visionary Establishment (L.O.V.E.) Conference**.*

*signifies presenter

PUBLICATIONS

Khosla, Moscovitch, Ryan (2020). *Path integration across modalities: updating gaze and hand position using motion cues.* (in prep)

AWARDS AND SCHOLARSHIPS

NSERC-Create Doctoral Award in Complex Dynamics   **2020 – 2021**
Award Value: $26,000

Ontario Graduate Scholarship (OGS)   **2020 – 2021**
University of Toronto
Award Value: $15,000 (Declined)

Toni Balatinecz Memorial Award   **2019 – 2020**
Rotman Research Institute, Baycrest
Award Value: $1000

Jack & Rita Catherall Travel Award   **2019**
Rotman Research Institute, Baycrest
Award Value: $500

SGS Conference Grant   **2019**
University of Toronto
Award Value: $750

Dean's Honour List   **2014 – 2018**
McMaster University

McMaster President's Award   **2014 – 2015**
McMaster University
Award Value: $2500

TEACHING EXPERIENCES

Advanced University Teaching Program (AUTP)   **July 2020 – Present**
  - Prepare to teach a university level course
  - Participate in interactive workshops, a teaching practicum, and prepare a teaching dossier
  - Develop a teaching philosophy and receive feedback on course planning and delivery

Programming Workshop Instructor: Python & R   **June 2019 – Present**
Rotman Research Institute, Baycrest
  - Lead interactive introduction to python workshops (June 2019, July 2020) and co-lead interactive introduction to R workshops (July 2019, July 2020) and advanced R workshop (November, 2019) which were collectively attended by over 200 trainees within and outside RRI (all workshop material available on GitHub: https://github.com/anishakhosla/rtc_workshop)

- *Python workshops*: Designed workshop content, live coded using Google Colab Notebook (jupyter-style interface), demonstrated basic programming concepts, dataframes in Python using pandas, and data visualization using seaborn
- *Intro to R workshops*: Co-led an introductory R workshop with Stephanie Simpson and Nichole Bouffard, designed workshop content, live coded using R-Studio, demonstrated data wrangling using tidyverse, descriptive and inferential statistics, and data visualization using ggplot2
- *Advanced R workshop*: Co-led an advanced R workshop on data visualization using ggplot2 package and linear mixed effects models using lme4 package

Advisor for Undergraduate Students   **January 2019 – Present**
Moscovitch and Ryan labs, University of Toronto & Rotman Research Institute
- Advise and train research assistants (Helena Wang, Michael Ghodrat) and undergraduate students (Astrid Coleman, Veena Sanmugananthan, Anna Waisman) in recruiting and testing participants on eye-tracking tasks, statistical analyses, and programming

Teaching Assistant   **September 2018 – Present**
Department of Psychology, University of Toronto
- Courses: Statistics, Introduction to Cognitive Psychology, Introduction to Psychology, Health Psychology
- Support students in understanding of course content and essay writing
- Hold tutorials and office hours to clarify student queries and grade research papers, exams, essays

Public Lecturer: Brain and Cognition   **June 2020 (cancelled due to COVID-19)**
- Planned to give a public lecture on science literacy to community adults registered in the Brain and Cognition series with the Research Training Centre at the Rotman Research Institute

---

OUTREACH

Steering Committee Member, Research Training Centre (RTC)   **July 2020 – Present**
Rotman Research Institute, Baycrest
- Contribute to RTC programming as a graduate student representative on the committee
- Coordinate and facilitate workshops, panels, etc.

EDI Committee Member, Psychology Department   **July 2020 – Present**
University of Toronto
- Develop and participate in initiatives aimed at diversifying graduate students in the psychology department at U of T
- Initiatives include modifying the program website, modifying the current application to include demographic question, developing a mentorship program for undergraduate students

Trainee Talk Series Organizer (SpeakEasy Series)   **July 2019 – Present**
Rotman Research Institute, Baycrest
- Co-lead monthly talk series at the Rotman Research Institute (RRI) with Dr. Derek Beaton where trainees can share, discuss, and receive feedback on their current work
- Organize off-site/virtual socials to inspire comradery amongst trainees
- Collaborate with scientists and trainees to plan events

neuroBRITE Mentor   **February 2019 – May 2019**
Rotman Research Institute, Baycrest
- Mentored high school students as a part of an outreach initiative aimed at introducing high school students to research via hands-on experience
- Visited local high schools to guide student teams in designing a behavioural/EEG experiment using the MUSE headset, collecting data, analyzing data using Python, and presenting data as a poster presentation
- Assisted with hackathons, conferences, and student workshops hosted at Baycrest

---

TECHNICAL SKILLS

- Programming Languages: Python, R, MATLAB
- Other: PsychoPy, Experiment Builder & Data Viewer by SR Research, ImageJ

OTHER INTERESTS—MENTORSHIP & SUPPORT ROLES

Friendly Visitor   **January 2019 – November 2019**
Psychiatry Unit, Baycrest Health Sciences, North York, ON
- Engage hospital clients in activities like playing games, walking around campus, reading books, and chatting

Peer Support Listener   **September 2017 – April 2018**
MSU Peer Support Line, McMaster University
- Volunteered for an anonymous and confidential peer support service on campus
- Supported students and equipped them with resources through confidential call or chat
- Participated in ASIST (Applied Suicide Intervention Skills Training)

Community Advisor   **September 2017 – April 2018**
McMaster University
Supervisor: Danielle Lapointe, Residence Manager, Residence Life Office
- Facilitated transition of first year students from high school to university
- Created a healthy community by fostering connections amongst students in the residence community by creating and leading floor events
- Promoted mental and physical health by advertising information about different resources on and off campus
- Certified in Standard CPR and HCP, and SafeTalk

Other Mentorship Roles   **January 2016 – April 2017**
McMaster University
- *Psychology Neuroscience, & Behaviour (PNB) Society:* Assisted second year students in PNB with course navigation, exploration of research opportunities in the PNB department, and answered any questions or concerns
- *Student Success Center:* Supported transition into university and a new country once students arrived on campus
- *McMaster Science Society:* Assisted first year students with program selection though the 'Take a First Year to Class' initiative and by connecting students to the resources for support during their first year in university