#### Dr. Benjamin Wolfe

University of Toronto Mississauga Department of Psychological and Brain Sciences 3359 Mississauga Road Mississauga, ON, L5L 1C6

> benjamin.wolfe@utoronto.ca www.applylab.org

#### PROFESSIONAL APPOINTMENTS

2021 - Assistant Professor

Department of Psychological and Brain Sciences, University of Toronto Mississauga

School of Graduate Studies, University of Toronto

Director, Wolfe Lab; Applied Perception and Psychophysics Laboratory Group (APPLY Lab)

2016 - 2020 Postdoctoral Associate, Rosenholtz Lab

Department of Brain and Cognitive Sciences

Massachusetts Institute of Technology

PI: Dr. Ruth Rosenholtz

2015 – 2016 Postdoctoral Associate, AgeLab

Center for Transportation Logistics Massachusetts Institute of Technology Pls: Dr. Bryan Reimer and Bruce Mehler

#### **AFFILIATIONS / STATUS-ONLY APPOINTMENTS**

2023 - PsychEng (Psychology/Engineering) Program at the University of Toronto

2023 - Data Science Institute at the University of Toronto

2023 - Mobility Network at the University of Toronto

2022 - Adjunct Faculty, Centre for Vision Research, York University

2022 - Associate Member, The Readability Consortium

#### **EDUCATION**

2015 Ph.D., Psychology

University of California at Berkeley

Advisor: Professor David Whitney; Cognition, Brain and Behavior Program

Dissertation: Before the Eye Moves: Remapping, Visual Stability and Perisaccadic Perception

2008 B.A., Psychology

**Boston University** 

#### **RESEARCH INTERESTS**

Visual perception; peripheral vision, scene perception, eye movements, visual attention, driving, readability

# **RESEARCH FUNDING** (\* denotes lead PI)

### 2024-2025 \*Transport Canada

Enhanced Road Safety Transfer Payments Program (TC-ERSTPP)

A Foundation for Next-Generation Driver Distraction Detection and Advanced Driver Assistance Systems (ADAS)

Co-PI with Dr Birsen Donmez (Mechanical and Industrial Engineering)

\$685,400

### 2024 Natural Sciences and Engineering Research Council (NSERC)

Research Tools and Instruments

A high-speed 3D projector system for fundamental and applied research in perception and cognition (*Lead PI: Dr Anna Kosovicheva;* co-applicant with Dr Keisuke Fukuda)

\$66,301

# 2023-2028 \*Social Sciences and Humanities Research Council (SSHRC), Insight Grant

"Improving readability in the digital age: Optimizing variable fonts for individual readers"

Lead PI, with Dr Anna Kosovicheva (co-PI)

\$302.875

# 2023-2025 \*University of Toronto XSeed Program

"Normal Blindness: Why drivers miss other road users even though they are looking, and what

can we do about it?"

Lead PI; collaboration with Dr Birsen Donmez (Mechanical and Industrial Engineering)

\$120,000

### 2023 \*UTM Psychology Autonomy Fund

Supporting undergraduate attendance at Vision Sciences Society 2023

\$6.270

# 2023 \*UTM Research and Scholarly Activity Fund

"A proof of concept for individual visual reading interventions in medical contexts"

\$10,000

### 2022-2024 \*University of Toronto Connaught Fund - New Researcher Award

"Why don't we notice rare dangerous situations on the road, and what can we do about it?"

\$20,000

#### 2022 \*Adobe Research Award

"Effects of Highlighting and Underlining on the Visual Mechanisms of Reading"

Joint award to Dr Benjamin Wolfe and Dr Anna Kosovicheva

\$94,750, gift award to APPLY Lab (\$75,000 USD)

#### 2021-2026 \*Natural Sciences and Engineering Research Council (NSERC) Discovery Grant

"Mechanisms of Visual Information Acquisition in Driving"

\$140,000 (\$28,000/year)

# 2021-2026 \*Natural Sciences and Engineering Research Council (NSERC)

**Discovery Launch Supplement** 

\$12,500

#### 2020 \*Adobe Research Award

"Virtual Reading Laboratory Project"

\$40,000, gift award to APPLY Lab (\$30,000 USD)

# 2019 – 2020 Toyota Research Institute - CSAIL Joint Research Program Grant

"Driver Perception and the Car-to-Driver Handoff" PI: Rosenholtz, supporting Benjamin Wolfe

\$230,000 USD per year in direct support to Rosenholtz Lab

### 2016 – 2018 Toyota Research Institute - CSAIL Joint Research Program Grant

"Reducing the Pain Points in Driving"

PI: Rosenholtz; supporting Benjamin Wolfe

\$300,000 USD per year in direct support to Rosenholtz Lab

#### 2017 Transport Research Laboratories (PI: Rosenholtz)

"Critical Event Response Thresholds"

\$20,000 USD (gift award)

#### 2015 Google Faculty Research Award (Pl: Rosenholtz)

"The role of eye movements in successful navigation during smartphone use"

\$67,000 USD (gift award)

# 2011 – 2014 \*National Science Foundation Graduate Research Fellowship (GRFP) to Benjamin Wolfe

\$120,000 USD in direct support and tuition coverage at UC Berkeley

# 2005 – 2008 \*Boston University Undergraduate Research Opportunities Program (UROP)

\$20,000 USD in direct support over three years (8 Competitive Renewals)

#### **AWARDS AND HONORS**

2025	Springer Nature Author Service Award
2019, 2021	Journal of Vision Exceptional Reviewer Award
2018	Transportation Review Board; Operations Section Young Author Award
2015, 2014	UC Berkeley Research Impact Initiative (Open Access Publication)
2015	UC Berkeley Psychology Department Travel Award
2014, 2013	UC Berkeley Graduate Division Travel Award

#### **PUBLISHED PAPERS AND ARTICLES (trainees underlined)**

- 1. (2024) <u>Guidi, S.</u>, Kosovicheva, A., **Wolfe, B.** Seeing the truck, but missing the cyclist: Effects of blur on duration thresholds for road hazard detection *Cognitive Research: Principles and Implications*
- 2. (2024) <u>Song, J.</u>, **Wolfe. B.** Highly dangerous road hazards are not immune from the low prevalence effect. *Cognitive Research: Principles and Implications*
- 3. (2024) <u>Song, J.</u>, Kosovicheva, A., **Wolfe, B.** Road Hazard Stimuli: Annotated naturalistic road videos for studying hazard detection and scene perception. *Behavioral Research Methods*.
- 4. (2023) <u>Haseeb, Z.</u>, **Wolfe, B.**, & Kosovicheva, A. Individual differences in localization biases predict crowding performance. *Journal of Vision*. 23(7), 9-9.
- 5. (2023) Kosovicheva, A., Wolfe, J.M., **Wolfe, B.**, Taking Prevalence Effects on the Road: Rare hazards are often missed; *Psychonomic Bulletin and Review*, 30(1), 212-223.
- 6. (2022) Beier, S., Berlow, S., Boucaud, E., Bylinskii, Z., Cai, T., Cohn, J., ... & **Wolfe, B**. Readability Research: An Interdisciplinary Approach. *Foundations and Trends in Human-Computer Interaction*. 16(4), 214-324

- 7. (2022) Wolfe, J.M., Kosovicheva, A., Wolfe, B., Normal Blindness When we look but fail to see. Trends in Cognitive Sciences, 26(9), 809-819.
- 8. (2022) Vater, C., Wolfe, B.A., Rosenholtz, R., Peripheral vision in real-world tasks: A systematic review; Psychonomic Bulletin and Review. 29(5), 1531-1557.
- 9. (2021) Wolfe, B.A., Kosovicheva, A., Stent, S., Rosenholtz, R., Effects of Temporal and Spatiotemporal Cues on Detection of Dynamic Road Hazards, Cognitive Research: Principles and Implications, 6(1), 80.
- 10. (2021) Nyström, M., Ahlström, C., Kircher, K., Wolfe, B., Eye tracking in driver attention research how gaze data interpretations influence what we learn. Frontiers in Neuroergonomics. 2, 778043.
- 11. (2021) Beier, S., Berlow, S., Boucaud, E., Bylinskii, Z., Cai, T., Cohn, J., ... & Wolfe, B. Readability Research: An Interdisciplinary Approach. arXiv preprint arXiv:2107.09615
- 12. (2020) Wolfe, B. A., Sawyer, B., Rosenholtz, R., Towards a Theory of Visual Information Acquisition in Driving. Human Factors, 64(4), 694-713.
- 13. (2020) Sawyer, B., Wolfe, B., Dobres, J., Chahine, N., Mehler, B., Reimer, B., Glanceable Legible Typography over Complex Backgrounds. *Ergonomics*, 63(7), 864-883.
- 14. (2019) Wolfe, B. A., Seppelt, B., Mehler, B., Reimer, B., Rosenholtz, R., Rapid holistic perception and evasion of road hazards. Journal of Experimental Psychology: General, 149(3), 490.
- 15. (2019) Wolfe, B. A., Sawyer, B., Kosovicheva, A., Reimer, B., Rosenholtz, R., Detection of Brake Lights While Distracted: Separating Peripheral Vision from Cognitive Load. Attention, Perception and Psychophysics, 81(8), 2798-2813.
- 16. (2019) Wolfe, B. A., Fridman, L. Kosovicheva, A., Seppelt, B., Mehler, B., Reimer, B., Rosenholtz, R., Predicting Road Scenes from Brief Views of Driving Video. Journal of Vision, 19(5):8, 1–14.
- 17. (2018) Wolfe, B.A., Rosenholtz, R., Peripheral Vision, Models Of. Encyclopedia of Cognitive Neuroscience.
- 18. (2018) Dobres, J., Wolfe, B., Chahine, N., Reimer, B. The Effects of Visual Crowding, Text Size, and Positional Uncertainty on Text Legibility at a Glance. Applied Ergonomics, 70, 240-246.
- 19. (2018) Chen, Z., Kosovicheva, A., Wolfe, B., Cavanagh, P., Gorea, A., Whitney, D. Unifying Visual Space Across the Right and Left Hemifields. Psychological Science. 9(3), 356-369
- 20. (2017) Wolfe, B.A., Dobres, J., Rosenholtz, R., & Reimer, B. More Than the Useful Field: Considering Peripheral Vision in Driving. *Applied Ergonomics*. 65, 316-325
- 21. (2017) Wolfe, B., Fridman, L., Kosovicheva, A., Seppelt, B., Mehler, B., Reimer, B. Perceiving The Roadway In The Blink Of An Eye - Rapid Perception Of The Road Environment And Prediction Of Events. Conference Proceedings, Driving Assessment 2017.
- 22. (2017) Dobres, J., Chrysler, S. T., Wolfe, B., Chahine, N., & Reimer, B. Empirical Assessment of the Legibility of the Highway Gothic and Clearview Signage Fonts. Transportation Research Board 96th Annual Meeting, 2624(1), 1-8. (No. 17-04920). Won Operations Section Young Author Award from Transportation Review Board.
- 23. (2016) Wolfe, B., Dobres, J., Kosovicheva, A., Rosenholtz, R., Reimer, B., Age-related differences in the legibility of degraded text. Cognitive Research: Principles and Implications, 1(1), 1-13.

- 24. (2015) Wolfe, B. A., Whitney, D. Saccadic remapping of object-selective information. Attention, Perception and Psychophysics. 77:7, 2260-2269.
- 25. (2015) Wolfe, B. A., Kosovicheva, A. A., Leib, A. Y., Wood, K. Whitney, D. Foveal input is not required for ensemble perception of emotional faces. Journal of Vision. 15(4), 11-11.
- 26. (2014) Kosovicheva, A. A., Wolfe, B. A., Whitney, D. Visual motion shifts saccade targets. Attention, Perception, & Psychophysics, 1-11.
- 27. (2014) Wolfe, B. A., Whitney, D. Facilitating recognition of crowded faces with presaccadic attention. Frontiers in Human Neuroscience. 8:103
- 28. (2010) Wolfe, B.A., Rushmore, R.J., Valero-Cabre, A. Coping With Spatial Attention in Real Space: A Low-Cost Portable Testing System for the Investigation of Visuo-Spatial Processing in the Human Brain. Journal of Neuroscience Methods. 187(2):190-8.
- 29. (2010) Swisher, J.D., Gatenby, J.C., Gore, J.C., Wolfe, B.A., Moon, C.H., Kim, S.G., Tong., F.. Multiscale pattern analysis of orientation-selective activity in the primary visual cortex. Journal of Neuroscience. 30(20):6811-2.

# SELECTED CONFERENCE PRESENTATIONS (student/trainee presenters underlined)

- 1. Heffernan, E., Wolfe, B., Kosovicheva, A., The impact of font on typo detection: a novel visual search paradigm. Brain and Integrative Vision Conference, York University, 2025
- 2. Moderator 2025 Readability Community Workshop, Vision Sciences Society 2025
- 3. (2025) Heffernan, E., Wolfe, B., Kosovicheva, A., The impact of font on typo detection: a novel visual search paradigm. Submitted to Vision Sciences Society 2025
- 4. (2025) Song, J., Wee, G., Wolfe, B., Biases in predictions of dynamic natural scenes: contributions of motion and scene content on the accuracy and precision of prediction. Submitted to Vision Sciences Society 2025
- 5. (2025) Zivli, I., Wee, G., Song, J., Wolfe, B., How much visual field loss can you tolerate on the road? Impact of peripheral and central scotomas on road hazard localization. Submitted to Vision Sciences Society 2025
- 6. (2025) Guidi, S., Kosovicheva, A., Wolfe, B. Psychophysics of variable fonts: Do multiple font features intact to impact readability? Submitted to Vision Sciences Society 2025
- 7. (2025) Guidi, S., Wolfe, B., Kosovicheva, A. The psychophysics of variable fonts: What affects reading speed? Presented at the Lake Ontario Visionary Establishment, February 2025 (poster)
- 8. (2025) Song, J., Wolfe, B., Prediction of dynamic natural scenes: the effect of motion and scene content on prediction bias. Presented at the Lake Ontario Visionary Establishment, February 2025 (poster)
- 9. (2024) Song, J., Wolfe, B., Did you look at the moose? Driver gaze behaviour while searching for hazards in dynamic road scenes, Poster presentation - Vision Sciences Society 2024

- 10. (2024) Guidi, S., Haseeb, Z., Kosovicheva, A., Wolfe, B. The effects of variable fonts on sentence-level reading. Poster presentation - Vision Sciences Society 2024
- 11. (2024) Wolfe, B., Open Questions in Digital Readability. Readability Workshop at Vision Sciences Society 2024; featured speaker and panelist
- 12. (2024) Haseeb, Z., Guidi, S., Kosovicheva, A., Wolfe, B., What's Your Type? Stimuli for Sentence Readability. Poster Presentation, Lake Ontario Visionary Establishment (L.O.V.E.) Conference 2024
- 13. (2024) Song. J., Wolfe, B. Where do drivers look when searching for hazards in dynamic road scenes? Investigating gaze behaviour while viewing dynamic road videos. Poster Presentation, Lake Ontario Visionary Establishment (L.O.V.E.) Conference 2024
- 14. (2023) Haseeb, Z., Guidi, S., Kosovicheva, A., Wolfe, B., What's Your Type? Stimuli for Sentence Readability. Poster Presentation, New VISTAs in Vision Science Conference 2023
- 15. (2023) Patel, K., Haseeb, Z., Wolfe, B., Kosovicheva, A. The Effects of Different Highlighting Styles on Reading Speed and Comprehension. Poster Presentation, New VISTAs in Vision Science Conference 2023
- 16. (2023) Song, J., Jeji, A., Chua, A., Gonzalez, C., Wolfe, B., Are unreliable car warnings still helpful to the driver? Poster Presentation, New VISTAs in Vision Science Conference 2023
- 17. (2023) Wolfe, B., Invited Symposium Speaker, Autonomous Vehicles and Driver Assistance Technology: What Can They Do for Drivers with Vision Impairment Now, and What Does the Future Hold? American Academy of Optometry Annual Meeting 2023
- 18. (2023) Gillies, G., Wolfe, B., Kosovicheva, A. Close, but not a T: Feedback, not similarity search, reduces the low-prevalence effect. Poster presentation, Vision Sciences Society 2023
- 19. (2023) Guidi, S., Haseeb, Z., Kosovicheva, A., & Wolfe, B. Psychophysics of variable fonts: Speed and comprehension measures. Poster presentation, Vision Sciences Society 2023
- 20. (2023) Haseeb, Z., Guidi, S., Wolfe, B., & Kosovicheva, A. Psychophysics of variable fonts: Gaze measures of reading efficiency. Poster presentation, Vision Sciences Society 2023
- 21. (2023) Wolfe, B., Gonzales, C., Kosovicheva, A. Where was the moose? The time course of dynamic road scene perception. Poster presentation. Vision Sciences Society 2023
- 22. (2023) Song, J., Chua, A. M., Patil, M., Kosovicheva, A., & Wolfe, B. When should you warn the driver about the moose?: The effect of auditory cue timing on hazard localization in naturalistic videos. Poster presentation, Vision Sciences Society 2023.
- 23. (2022) Wolfe, B., Panelist and presenter, The Future of HFES By Some Of Those Who Will Create It, Talk presentation at Human Factors and Ergonomics Society Annual Meeting, 2022
- 24. (2022) Song, J., Kosovicheva, A., Wolfe, B. You'll still miss the moose on the road: Rare hazards are frequently missed even when they are perceived as highly dangerous. Talk presentation Object Perception Attention and Memory (OPAM) meeting at Psychonomic Society Annual Meeting.
- 25. (2022) **Wolfe, B.A.** Eye Movements and Information Acquisition. 7<sup>th</sup> International Conference on Traffic and Transport Psychology (ICTTP), August 22-25, 2022. Invited talk.

- 26. (2022) Guidi, S., Ghuman, C., Kosovicheva, A., Wolfe, B., Effects of Blur on Duration Thresholds for Road Hazard Detection; Poster presentation, Vision Sciences Society 2022
- 27. (2022) Kosovicheva, A., Wolfe, J.M., Wolfe, B., The Moose Came Out of Nowhere: Low Prevalence Effects in Road Hazard Detection; Talk presentation. Vision Sciences Society 2022
- 28. (2021) Kosovicheva, A., Wolfe, J.M., Wolfe, B. Taking Prevalence Effects on the Road: Rare Hazards are Often Missed. Poster Presentation. Psychonomic Society Annual Meeting
- 29. (2021) Kanda, S. (advisors: Kosovicheva, A., Wolfe, J.M., Wolfe, B.) Prevalence effects on the road: rare hazards are often missed. Presented at V-VSS 2021 (undergraduate just-in-time session)
- 30. (2021) Wolfe, B.A., Kosovichvea, A., Stent, S., Rosenholtz, R., Attentional Cueing in the World: Temporal and Spatiotemporal Cues for Road Hazards. Presented at V-VSS 2021.
- 31. (2020) Wolfe, B.A., Rosenholtz, R., Understanding dynamic scenes: How driving can teach us about scene perception. Vision Sciences Society Annual Meeting. Presented virtually at V-VSS, June 19-24, 2020, due to COVID-19.
- 32. (2020) Hernandez, C.I., Rahill, K., Pham, M., Manriquez, L., Louis, P., Figueroa, A., Medina, B., Wolfe, B., Sawyer, B.D., Prevalence effects are not driving hazard detection on the road. Vision Sciences Society Annual Meeting, May 15-20, 2020. Presented virtually at V-VSS, June 19-24, 2020, due to COVID-19.
- 33. (2019) Wolfe, B.A., Rosenholtz, R., Why Uber Drivers Scare You: Detecting Road Hazards With Peripheral Vision. Vision Sciences Society Annual Meeting May 17-22, 2019.
- 34. (2018) Wolfe, B.A., Rosenholtz, R., Was that a moose on the road? Gist-like perception of emerging driving hazards. Vision Sciences Society Annual Meeting, May 18-23, 2018.
- 35. (2017) Wolfe, B.A., Fridman, L., Kosovicheva, A.A., Reimer, B. & Rosenholtz, R. Seeing the road in the blink of an eye - rapid perception of the driver's visual environment. Vision Sciences Society Annual Meeting, May 19–24, 2017.
- 36. (2017) Rosenholtz, R., Wolfe, B.A., Sawyer, B., Kosovicheva, A.A. & Reimer, B. Perceptual and attentional factors in detection of driving-relevant visual events. Vision Sciences Society Annual Meeting, May 19-24, 2017.
- 37. (2016) Wolfe, B.A., Dobres, J., Kosovicheva, A.A., Rosenholtz, R., Reimer, B. Reduction in Legibility with Degradation in Older and Younger Observers. Vision Sciences Society Annual Meeting, May 13-18, 2016.
- 38. (2015) Wolfe, B.A., Whitney, D. Object-selective processing of remapped information. Vision Sciences Society Annual Meeting. May 15-20, 2015.
- 39. (2015) Kosovicheva, A. A., Wolfe, B.A., Cavanagh, P., Gorea, A., Whitney, D. Dynamic recalibration of perceived space across the visual hemifields. Vision Sciences Society Annual Meeting. May 15-20, 2015.
- 40. (2015) Wood, K., Wolfe, B. A., Kosovicheva, A. A., Whitney, D. Speeded breakthrough of faces in interocular suppression requires configural information. Vision Sciences Society Annual Meeting, May 15-20, 2015.
- 41. (2014) Wolfe, B.A., Whitney, D. Presaccadic Induction and Spatial Tuning of the Face Aftereffect. Vision Sciences Society Annual Meeting, May 16-21, 2014.

- 42. (2014) Wood, K., Wolfe, B. A., Kosovicheva, A. A., Leib, A. Y., Whitney, D. Foveal input is not required for ensemble coding of emotional faces. Vision Sciences Society Annual Meeting. May 16-21, 2014.
- 43. (2013) Wolfe, B. A., Kosovicheva, A. A., Leib, A. Y., Whitney, D. Beyond fixation: Ensemble coding and eye movements. Vision Sciences Society Annual Meeting. May 10-15, 2013.
- 44. (2012) Kosovicheva, A. A., Wolfe, B.A., Whitney, D. Effects of motion-induced mislocalizations on saccade landing position. Vision Sciences Society Annual Meeting. May 11-16, 2012.
- 45. (2012) Wolfe, B.A., Whitney, D. Presaccadic foveal priming diminishes crowding. Vision Sciences Society Annual Meeting. May 11-16, 2012.
- 46. (2011) Wolfe, B.A., Whitney, D. Egocentric but not allocentric perceptual distortions from saccadic adaptation. Vision Sciences Society Annual Meeting. May 6-11, 2011.

#### SELECTED INVITED TALKS AND SEMINARS

- 1. Scene Grammer Lab Seminar, Goethe University Frankfurt, November 19, 2024
- 2. PsyEng Seminar, October 15, 2025
- 3. Driver's Edge Safety Webinar, August 13, 2024
- 4. Queen's University, Department of Psychology, March 15, 2024
- 5. North Dakota State University, Department of Psychology, February 16, 2024
- 6. Colorado State University, Department of Psychology, January 12, 2024
- 7. Jaguar Land Rover North America, December 12, 2023
- 8. University of New Hampshire, Department of Psychology, December 14, 2022
- 9. York University, Centre for Vision Research, Toronto ON, September 23, 2022
- 10. Autonomous Vehicles Workshop (Al-CRV Conference), May 30, 2022
- 11. Rotman Rounds, Rotman Research Institute at Baycrest, February 7, 2022
- 12. University of Toronto, Ebbinghaus Empire Talk Series, October 27, 2021
- 13. KITE, University Health Network, Toronto ON, June 22, 2021
- 14. Brandeis University, Department of Psychology, March 11, 2021
- 15. Human Factors Interest Group, University of Toronto, February 21, 2021
- 16. Boston University, Department of Biomedical Engineering, November 9, 2020
- 17. University of Toronto, Department of Mechanical and Industrial Engineering, November 3, 2020
- 18. University of Iowa, Department of Psychology, October 23, 2020
- 19. University of California at Berkeley, Department of Psychology, July 13, 2020
- 20. University of Indiana Bloomington, School of Optometry, March 31, 2020
- 21. University of Toronto Mississauga, Department of Psychology, January 21, 2020
- 22. Toyota Research Institute, Cambridge MA, May 13, 2019
- 23. New England College of Optometry, Boston MA, April 16, 2019
- 24. Schepens Eye Research Institute, Boston MA, August 29, 2018
- 25. Tufts University, Department of Psychology, January 25, 2018

#### **MENTORSHIP & RESEARCH SUPERVISION**

#### **Postdoctoral Fellows**

2022 -Dr Jiali Song 2023 - 2024 Dr Khushi Patel 2024 -Dr Emily Heffernan

#### **Graduate Students**

2022 - 2023 Greer Gilles (outside project supervisor)

2023 - 2024 Jaweria Qaiser (outside project supervisor)

2024 - 2025 Ece Yucer (outside project supervisor)

Zainab Haseeb (PhD student; direct advisee; co-supervised with A. Kosovicheva) 2023 -2024 -Silvia Guidi (PhD student; direct advisee, co-supervised with A. Kosovicheva)

Mattea Powell (PhD student, Mechanical/Industrial Engineering, co-advisor with B. Donmez) 2024 -

2025 -Ido Ziv Li (PhD student, direct advisee)

#### **Undergraduate Students** (\* denotes honors thesis supervision)

University of Toronto Mississauga (2021-present)

Elizabeth Alchekh, Nicole Arias, Sara Alzate, Sara Aboelkher, Avery Chua, Ammara Faiyaz, Chandandeep Ghuman, Cristeidy Gonzalez, Silvia Guidi, Zainab Haseeb\*, Jamie Inderjeit, Anureet Jeji, Saad Khan, Simran Kanda, Zoey Khaled, Margaret Kuzenko, Ido Ziv Li, Brooke Lim, Selina Liu, Haneen Nasir, Kiran Panicker, Meghna Patil, Sanaullah Pirzada, Paulina Plewa, Mia Romano, Trassy D'Rosario, Cassandra Russo, Dyllan Simpson, Aman Singh, Dorsa Tafazzoli, Cynthia Umuringa, Ginnie Wee, Srelisha Yokeswaren, Caroline Yuan

Massachusetts Institute of Technology (2015-2020) Riley Ledezma, Martin Lopez

University of California at Berkeley (2010-2015) Claire Jeon, Omead Kohanteb, Katherine Wood\*

# **High School Students / Secondary School Students**

Massachusetts Institute of Technology Sohan Subhash, Yrvine Thelusma

# **TEACHING EXPERIENCE**

Department of Psychology, University of Toronto Mississauga

Roots of Psychology (4<sup>th</sup> year seminar): PSY402 Winter 2025, Winter 2024, Winter 2023, Winter 2022

Human Factors and Applied Perception (3rd year lecture course); PSY385 Fall 2024, Fall 2023, Fall 2022

Cognitive Psychology (2<sup>nd</sup> year lecture course) Fall 2024, Fall 2023, Summer 2021

#### **SERVICE**

UTM Research and Scholarly Activities Fund Reviewer
Internal Reviewer, Graduate Department of Psychology; PhD Vanier Competition
Internal Reviewer; Graduate Department of Psychology; CGS-M SSHRC
Decanal Committee on Artificial Intelligence Tools, UTM
Faculty Mentor, UTM Pearson Scholars Program
Faculty Mentor, UTM Presidential Scholars of Excellence Program
Co-Organizer, Open Undergraduate Lab Meeting (APPLY and Fukuda Labs at UTM)
Organizer, UTM Psychology "Careers in Cognitive Psychology" Panel Series
Departmental PTR Committee Member
Vision Sciences Society Demo Night Committee Member
Member, Ad-Hoc Working Group on NIH Clinical Trials Policy for Basic Science

#### ADDITIONAL TRAINING

2008 - 2010 Research Associate, Tong Lab

Department of Psychology, Vanderbilt University

Supervisor: Dr. Frank Tong

2005 - 2008Research Assistant, Cerebral Dynamics Laboratory

Department of Anatomy and Neurobiology, Boston University Medical School

Advisors: Dr. R. Jarrett Rushmore and Dr. Antoni Valero-Cabré

#### REVIEWING EXPERIENCE

Attention, Perception and Psychophysics: Vision Research; Journal of Vision\*; Journal of Journals:

Experimental Psychology: General; Journal of Experimental Psychology: Human Perception and Performance; iPerception; Experimental Brain Research; Behavioral Research Methods; Translational Vision Science and Technology; Visual Cognition, Cognitive Science; Cognitive Processing, Experimental Psychology; Cognitive Research, Principles and Implications; Ophthalmic and Physiological Optics; Scientific Reports (Nature); PLOSone; Human Factors; Ergonomics: Applied Ergonomics: International Journal of Occupational Safety and Ergonomics: Traffic, Injury and Prevention; Accident, Analysis and Prevention; Transactions on Intelligent

Transportation Systems; British Journal of Psychology; Heilyon; Scientific Reports

\*Exceptional Reviewer Award (2019, 2021)

Conferences: IEEE Visualization and Graphics Technical Committee (VGTC), Driving Assessment, IEEE

Information Visualization (InfoVis), NeurIPS/NIPS, AutomotiveUI, European Conference for Visual Perception (ECVP), ACM Symposium on Eye Tracking Research and Application

(ETRA), CogSci

Agencies: US-Israel Binational Science Foundation

National Sciences and Engineering Research Council of Canada (NSERC)

# **EDITORIAL EXPERIENCE**

2024 – 2025 Editorial Board Member, *Nature Scientific Reports* 

2021 -Digital Associate Editor, Psychonomic Society

#### **COMMUNITY OUTREACH AND PRESENTATIONS**

2023 UTM STEM Fellowship Program – Host Lab (for Grade 11 students)

2010 – 2015 Whitney Lab K-12 Outreach Program

2014 Vision Sciences Society Demo Night Presenter, "Strobowheel"

2012 Vision Sciences Society Demo Night Presenter, "An Aftereffect Based on Texture Element

Ratios"

#### PROFESSIONAL MEMBERSHIPS

2023 - Present Cognitive Science Society

2023 - Present Canadian Society for Brain, Behaviour and Cognitive Science

2022 - Present **Human Factors and Ergonomics Society** 

2009 - Present Vision Sciences Society 2014 - Present **Psychonomics Society** 

#### **REFERENCES**

#### Ruth Rosenholtz, Ph.D.

Principal Research Scientist Department of Brain and Cognitive Sciences Massachusetts Institute of Technology 77 Massachusetts Ave, 32-D426 Cambridge, MA, 02139 rruth@mit.edu

# Ben D. Sawyer, Ph.D., MSIE

Associate Professor Department of Industrial Engineering and Management Systems University of Central Florida 4000 Central Florida Blvd. Orlando, FL 32817 sawyer@ucf.edu

# David Whitney, Ph.D.

Professor, Department of Psychology University of California at Berkeley 2121 Berkeley Way University of California, Berkeley Berkeley, CA 94720-1650 dwhitney@berkeley.edu