

Vivian (Meng-Tze) Liu

www.linkedin.com/in/vivian-liu-b1820959
mengtze.liu@gmail.com

Education

Doctorate - Experimental Psychology | University of Ottawa | 2024 - current

Honors Bachelor of Arts in Psychology | University of Ottawa | 2020 - 2024

Bachelor of Engineering with Distinction, Co-operative Education | Carleton University | 2011 - 2016

Awards

2025 - 2029	Doctoral Admission Scholarship, University of Ottawa (\$36,000)
2024 - 2025	Master's Admission Scholarship, University of Ottawa (\$7,500)
2024 - 2025	Canadian Graduate Scholarships - Master's (CGS-M) (\$25,000)
2024	Lillian Gertsman Scholarship (\$2,000)
2023	NSERC Undergraduate Student Research Awards (USRA) (\$8,000)
2020 - 2023	Merit Scholarship, University of Ottawa (\$4,000)
2011 - 2014	Faculty Scholarship, Carleton University (\$4,000)

Conference Presentations

2024

Kamineneni, D., Retanal, F., Wales, E., Larkin, E., **Liu, V.**, Bureau, J.F., LeFevre, J.A., Osana, H.P., Skwarchuk, S.L., Maloney, E.A. (2024, June 25-27). *Relations Among Literacy Attitudes and Performance of Parents and Children*. Poster accepted to the CSBBCS Conference, Edmonton, Alberta, Canada.

Other Presentations

2023

Liu, V., Maloney, E.A. (2023, November 10). *Math and visual impairments: Cognition, research, and application in education*. Oral presentation at Cognitive Brown Bag, University of Ottawa, Canada.

Research Experience

(Graduate) Research Assistant

February 2023 - Present

Cognition and Emotion Lab (CELab), University of Ottawa

- Conducted a scoping review on mathematics learning for visually impaired individuals, including educational practices, assistive technology, cognitive representation, and neuro-activations. Synthesized relevant information into a PowerPoint presentation during a lunch-and-learn seminar for professors and graduate/undergraduate students from the Psychology department.
- Consolidated four versions of studies in Qualtrics into one by using embedded data and eliminating the need to export results from multiple forms.
- Using JavaScript, added a feature in an online survey where participants can move on to the next page if they completed all items on the current page, or if a set amount of time has passed, thus making the survey more user-friendly.
- Acted as the primary coder for a qualitative teaching strategy scale used to evaluate parent-child homework interaction, trained students in a Directed Research course to be secondary coders, and evaluated inter-rater reliability using R.
- Conducted multiple regression analysis in SPSS to test whether parents' prediction of their child's performance was related to the parent's math anxiety after controlling for the child's age, gender, and the parent's general anxiety.
- As part of the courses, conducted research and orally presented research findings to professors and peers on the effect of linguistic distance on cognitive processing in bilinguals, the neural correlates of spatial and numerical processings, and how to prepare for university career.

- Piloted research studies for colleagues in the lab to provide constructive feedback, including adjusting the wording in questions, providing clarifications on instruction, and whether the questionnaire is too long.
- Held a statistics workshop for undergraduate students during a workshop series on how to create poster presentations for experimental psychology studies.
- Guided children between the age of 8 to 10 through questionnaires on math anxiety, math and English performance, and working memory tasks.

Research Assistant

May 2023 - December 2023

Taler Lab, Elisabeth Bruyère Hospital and University of Ottawa

- Conducted phone interviews with potential participants, collecting demographic information, cognitive abilities, linguistic background, and medical histories in the Excel database, which are used to screen out those ineligible to participate in the study.
- Converted paper-and-pen measures of semantic fluency into digital format in EPrime and Qualtrics to test cognitive-linguistic abilities, which are used by other graduate students in their studies.
- Acquired budget-friendly equipment to improve the quality of audio recording and improve the experience of both participants and research assistants.
- Coordinated with other lab members to schedule eligible participants for in-person testing sessions and to administer cognitive and linguistic tests.
- Coded test results according to manuals; streamlined data input into Excel spreadsheets.
- Improved the efficiency of scoring and data entry by streamlining posttest workflow; reduced paper waste by making minor stylistic adjustments to scoring sheets used by RAs.

Teaching Experience

Teaching Assistant

January 2025 - April 2026

PSY2106 Quantitative Methods in Psychology, University of Ottawa

- Held virtual and in-person tutorial sessions to review core statistical concepts and practice solving word problems in the textbook.
- Provided ongoing support to students by hosting office hours to review practice quizzes and discuss study strategies.

Teaching Assistant

September 2024 - December 2024

PSY2110 Social Psychology, University of Ottawa

- Converted paper tests to online format on the BrightSpace system.
- Proctored in-person midterms and collected processed scantrons for safekeeping.
- Provided ongoing support to students by hosting office hours to review graded assignments and exams, discuss study strategies, and how to improve assignment works.

Online Tutor

December 2021 - March 2023

Paper Education

- Assisted students from grade 3 to 12 with homework assignments in mathematics, computer science, physics, and electrical engineering.
- Collaborated with tutor colleagues remotely to solve difficult homework problems and come up with effective learning strategies for grade 3 to 12 students.

Teaching Assistant

January 2016 - April 2016

ECOR1606 Introduction to Engineering Problem Solving, Carleton University

- Provided continuous support to students during hands-on laboratory sessions by assisting students with problems related to assignments and general course materials.
- Coordinated with other TAs to ensure students receive prompt and accurate feedback on assignments and exams.

Facilitator**January 2014 - April 2014***Peer-Assisted Study Session (PASS), Carleton University*

- Attended all lectures to create worksheets relevant to the current materials for students during two weekly workshops organized by the Peer-Assisted Study Sessions (PASS) program.

Professional Association Membership

Canadian Society for Brain, Behaviour, and Cognitive Science (CSBBCS)

2024 - Present

Women in Cognitive Science Canada (WiCSC)

2023 - Present

Institute of Electrical and Electronics Engineering (IEEE)

2012 - 2016**Extracurricular Activities**

Finance Co-Director**2024 - Present***Interdisciplinary Conference in Psychology, University of Ottawa*

- Compiled a list of past income and expense sources to create a historical trajectory in Excel, which is then used to create the most recent budget sheet.
- Created an online expense reimburse form via Microsoft Form to collect detailed information of each transaction, including the committee responsible, the item(s) purchased, and the receipts.
- Coordinated with other directors and co-directors to contact internal and external sponsors, and to allocate fundings for specific programs and activities.
- Updated the internal Finance Director Guide with additional information on how to apply for different fundings, contact information of each funding organization, typical deadline, and any specific requirements from each funding organization.
- Manage budget, oversee registration, and compiled expense reports and attendant reports.

Co-coordinator**2024 - Present***Cognitive Brown Bag, University of Ottawa*

- Invite professors and graduate students to participate in a weekly seminar on various subjects related to psychological research.
- Prepared conference room for presenters and ensured a smooth seminar experience.
- Update website and send out email reminders on upcoming presentations.

Webmaster**2023 - Present***Women in Cognitive Science (WiCSC) Trainee Board*

- Consolidated written and visual materials prepared by other members into online articles published on the WiCSC website hosted on WordPress.
- Customized CSS and HTML code to meet content and aesthetic requirements set by the team.
- Collected information on federal and provincial fundings for graduate students and assisted with creating infographics on Instagram and blog posts on the organization's website.

Webmaster**2023***Taler Lab*

- Customized the premade website template to include participant recruitment forms that sends notification emails to the lab email address.
- Increased website visibility by submitting the Sitemap to Google Search Console.

Notetaker Assistant**2022 -2023***Student Academic Success Service, University of Ottawa*

- Compiled typed notes, including visual diagrams and equations, from in-person and online lectures in Word and Google Doc for students with hearing or visual impairments registered with the Student Academic Support Service.
- Including CSI2120: Programming Paradigms, MAT1330: Calculus for the Life Sciences I, MAT1332: Calculus for the Life Sciences II, and MAT2377: Probability & Statistics for Engineers.

Volunteer Note-taker **2022 - 2023**

Student Academic Success Service, University of Ottawa

- Shared typed notes with classmates with non-physical learning impairments registered with the Student Academic Support Service.
- Including PSY3173: Forensic Psychology, PSY4130: History and Systems of Psychology, PSY3126: Cross-Cultural Psychology, and PSY4173: Seminar in Cognitive Psychology Research

Volunteer Note-taker **2013**

Paul Menton Center, Carleton University

- Shared typed notes with classmates with learning impairments registered with the university for the course SYSC2004: Object-Oriented Software Development.

Peer Mentor **2013 - 2014**

Support and Advice for First-Year Engineering (SAFE) Center, Carleton University

- As a mentor, provided academic support and advice to first-year engineering students.
- Collaborated with other mentors during the shifts to handle flows of students.

Volunteer **2013**

Electronics Department laboratory, Carleton University

- Organized the annual FPGA course competition for the Digital Electronics (ELEC3500) course.
- Organized the annual course competition for the Electronics II (ELEC3509) course.

Vice Chair **2015 - 2016**

Secretary **2014 - 2015**

Event Director **2013 - 2014**

Volunteer **2012 - 2013**

IEEE Carleton University Student Branch

- Participated in weekly executive meetings to organize student outreach events, technical workshops, industry networking events (such as the Student Professional Awareness Conference), and other duties.
- Communicated with professors in the Electronics department to print out paper copies of course packages and lab manuals for other engineering students.
- Kept the on-campus office open to serve other students, including answering questions regarding upcoming events, selling course packs, giving course recommendations, providing academic advice, and sharing technical knowledge.