

NICOLAS VIULET

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EDUCATION

MCMASTER UNIVERSITY

Master of Science (MSc)

Sep. 2025 — Ongoing
Hamilton, ON

- **Program:** Neuroscience
- **Thesis:** Investigating the relationship between intracortical myelin and major depressive disorder (MDD).
- **Thesis Supervisor:** Dr. Nicholas Bock
- **Selected Coursework:** Statistical Methods in Neuroscience

UNIVERSITY OF TORONTO

Honours Bachelor of Science (HBSc)

Sep. 2021 — Jun. 2025
Toronto, ON

- **Program:** Neuroscience Specialist Major | Buddhism, Psychology, and Mental Health Minor
- **Cumulative GPA:** 3.71
- **Thesis:** Acute Functional Brain Changes Associated with Psilocybin in Depression: a protocol for a systematic review and meta-analysis
- **Thesis Supervisor:** Dr. Sean Nestor
- **Selected Coursework:** Clinical Neuroimaging; Synapse Neurobiology; Neurobiology of Behaviour; Neuroanatomy; Advanced Research in Meditation, Psychology & Neuroscience; Ethics in Emerging Technology

ACADEMIC AND RESEARCH AWARDS

- *Total Award Value:* \$4,435
 - Dean's List Scholar in the Faculty of Arts & Science (2023, 2025)
 - James Morrow Scholarship (2023)
 - The Dr. Lorus J. Milne and Dr. Margery J. Milne Research Award (2025)
 - Lincoln Hutton Essay Prize: Sciences (2025)

RESEARCH INVOLVEMENT

Embodiment, Attention, Sensation, Engagement (EASE) Lab

Affiliated Researcher

Jan. 2025 — Ongoing
Toronto, ON

- Engaged in monthly meetings which aim to foster rigorous interdisciplinary research interactions between scientists, academics, health practitioners, and contemplative traditions.

EMBRACE Project, Sunnybrook Health Sciences Centre

Undergraduate Thesis Student (HMB496Y1: Research Project in Human Biology)

Jul. 2024 — April 2025

Toronto, ON

- Performed a comprehensive systematic literature search, adhering to Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) guidelines, using the OVID search engine to contribute to a systematic review, registered on PROSPERO, with two key aims:

(1) To determine any functional connectivity changes that occur in mood- and emotion-related brain networks from pre- to post-psilocybin in healthy versus depressed adults – consolidate the therapeutic targets of psilocybin on a region/network level in the brain of patients with major depressive disorder (MDD).

(2) To supplement the Engaging Mood Brain Circuits with Psilocybin (EMBRACE) clinical trial in support of our a-priori regions (sgACC, dlPFC) of interest within mood-related networks (salience, DMN, etc.)

- Worked with PhD, MSc, and HBSc students to compile functional imaging data, regarding the impact of psilocybin on major depression and healthy controls, for a neuroimaging meta-analysis using activation likelihood estimation (ALE).
- Used multiple collaborative platforms such as Zoom, Covidence, Microsoft SharePoint, and Slack to effectively communicate and work with peers.

The BOLD lab, University of Toronto

Aug. 2023 — Aug. 2025

Undergraduate Research Assistant (Volunteering and Work Study Contract)

Toronto, ON

- Worked on the REF (Reading Development in Resettled Refugees) project with PhD, MSc, and, HBSc students in the BOLD lab at the Ontario Institute for Studies in Education (OISE).
- Facilitated data collection of functional neural activity using the fNIRS (functional near-infrared spectroscopy) system on an ongoing cohort of about 120 participants.
- Administered English Language behavioural measures, using various standardized language psychometric tests on an ongoing cohort of about 120 participants; collected with REDCap.
- Facilitated data collection, using REDCap, of English Language behavioural measures using various standardized language psychometric tests and fNIRS data for the REF2-pilot and REF2 study which includes an expanding cohort of Dari and Pashto-speaking families.
- Facilitated the cleaning of data collected through psychometric tests.
- Maintained the BOLD Lab website by consistently updating publications and poster presentations.
- Trained new research assistants in data collection; explained and demonstrated both English Behavioural and fNIRS protocols.
- Used Python to write various scripts for data organization.
- Used multiple collaborative platforms such as MS SharePoint, MS Teams, and Slack to effectively communicate with peers.

ACADEMIC PRODUCTIVITY

PUBLICATIONS

Submitted, Under Review

1. Violet, N. OCD and Predictive Processing: Remedyng Reduced Self-Confidence and Negative Affect with Meditation. *SPARK Health Student Journal*

Published

2. Violet, N. (2023, December 11th). Effects of Aerobic Exercise on the Brain: Benefits of Aerobic Exercise for Parkinson's Disease Patients. *Project Wellness Student Journal*, (4), 36-44. <https://heyzine.com/flip-book/6704ae2bbe.html#page/37>

POSTER PRESENTATIONS

1. Poulin, J., Violet, N., Liu, A., MacIntosh, B., Nestor, S. Acute Functional Brain Changes Associated with Psilocybin in Healthy Adults and Depression: A systematic review and meta-analysis. *SRI (Sunnybrook Research Institute) Research Day* (2025, July)

2. Poulin, J., Violet, N., Liu, A., MacIntosh, B., Nestor, S. Acute Functional Brain Changes Associated with Psilocybin in Healthy Adults and Depression: A systematic review and meta-analysis. *University of Toronto Department of Psychiatry Research Day* (2025, June)
3. Violet, N. Magic Mushrooms: A New Frontier in Mental Health. *Victoria College Research Day*. Toronto, ON. (2025, March).

PROFESSIONAL EXPERIENCES

Psychology, Neuroscience, and Behaviour Department, McMaster University Sep. 2025 — Ongoing
Neuroanatomy & Neurophysiology (PNB 2XB3) Teaching Assistant Hamilton, ON

- Worked under the supervision of Dr. Daniel Goldreich to mark and provide feedback to students through course assignments.
- Provided mentorship and facilitated knowledge transfer for undergraduate students by answering coursework related questions through email and in-person.

The Keg Steakhouse & Bar Jun. 2023 — Sep. 2025
Busser, Barback, and Server
 Toronto, ON

- Coordinated with servers, bartenders, and kitchen staff to ensure smooth service and provide an exceptional customer experience.
- Managed time effectively and showed an understanding of fine-dining etiquette to complete various tasks (restocking liquor, clearing tables etc.,) under pressure.
- Taught new staff in similar roles and worked with staff and customers within a range of socioeconomic backgrounds.

Michigan Healthcare Academy (MHA) Jun. 2022 – Apr. 2023
CNA (Certified Nurse Assistant) Teaching Assistant Mt. Clemens, MI

- Achieved nurse assistant certification in Michigan then taught other nurse assistant students pertinent skills to acquire their own nurse assistant certifications.
- Facilitated and demonstrated nursing assistant skills such as washing the perineal area, taking vitals, locomoting residents, dealing with patients with neurological conditions et cetera.
- Learned how to better interact with a varied demographic of people, teach effectively, and work in a healthcare environment.
- Collaborated with other TAs and senior teachers to facilitate lesson planning and skill demonstration setup.

EXTRACURRICULAR INVOLVEMENT

Student of the MiNDS Association (SOMA) Sep. 2025 — Ongoing
Events Team Executive Member Hamilton, ON

- Managed event planning for the Neuroscience Graduate Students' Union (SOMA), overseeing venue logistics, team coordination, and budget management to support community engagement initiatives.

Buddhism Psychology Student Union (BPSU) Apr. 2024 — Aug. 2025
Treasurer Toronto, ON

- Managed club finances for the 2024-2025 academic year by effectively using Google sheets to collaborate with other executives.

- Managed a \$4,000 CAD budget and allocated these funds across academic and social events over the fall and winter semesters.
- Facilitated event planning and setup via collaboration with fellow executive members resulting in engaging events including two academic seminars along with a plethora of social events which fostered interdisciplinary community engagement amongst students.
- Managed the BPSU bank account and collected receipts for all club transactions leading to an efficient allocation of funds provided by the Arts and Sciences Student Union (ASSU).

Ask An Undergrad – UofT Student Chapter

Jan. 2024 — Apr. 2025

Mentor

Toronto, ON

- Facilitated coffee chats to provide first-year students with the necessary information to effectively transition into post-secondary education by providing mentorship support and resources to effectively plan for undergraduate studies.

Neurological and Neurodegenerative Disease Student Association (NANSA)

Nov. 2023 — Apr. 2024

Mentor

Toronto, ON

- Mentored first and second-year undergraduate students interested in the Neuroscience major or specialist program at U of T via communication through emails and in-person meetings.
- Provided key resources for lower-year students related to research positions, research funding, extracurricular opportunities, academic support, and exploration of career opportunities.

SKILLS AND CERTIFICATIONS

Healthcare

- Oxygen Therapy — *Canadian Red Cross* (ID: 104320537)
- Airway Management — *Canadian Red Cross* (ID: 104320535)
- Standard First Aid CPR/AED Level C — *Canadian Red Cross* (ID: 104320535)

Research & Ethics

- Responsible Conduct of Research (RCR) — *CITI Program* (ID: 68697823)
- Biomedical Research Ethics Tutorial — *CITI Program* (ID: 57746125)
- Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS2) — (ID: 00014199954)
- Health Canada Division 5: Drugs for Clinical Trials Involving Human Subjects — *CITI Program* (ID: 68697824)
- Good Clinical Practice (GCP) — *CITI Program* (ID: 68697822)

Technical Skills

- **Programming & Software:** Python, R, MATLAB, HTML, REDCap
- **Neuroimaging Research Experience:** FSL, FreeSurfer, ITK-SNAP, fNIRS (training and data collection), MRI (analysis)
- **Neuroimaging Coursework Experience:** DTI & fMRI (theoretical knowledge and preprocessing steps)

Languages

- English (fluent)
- Romanian (fluent)

