Michael S. Truong

emstruong | ✉ mtruong@yorku.ca

EDUCATION

Ph.D. in Psychology *(Quantitative Methods)* 　　　　　　　　　　　2022 - Present

York University

Supervisor: *Dr. Ji Yeh Choi*

M.A. in Psychology *(Developmental Sciences)* 　　　　　　　　　　　2022

York University

Supervisors: *Drs. Thanujeni Pathman & W. Dale Stevens*

Thesis: *Transfer Success on the Linda Problem: A Re-Examination Using Dual Process Theory, Learning Material Characteristics, and Individual Differences*

H.B.Sc in Neuroscience & Psychology 　　　　　　　　　　　2020

University of Toronto

Supervisor: *Dr. Morris Moscovitch*

Project: *Temporal Order & Associative Memory*

A.R.C.T in Piano Performance 　　　　　　　　　　　2015

Associate of The Royal Conservatory of Music Toronto

AWARDS AND SCHOLARSHIPS

2025	York Conference Travel Fund	**$500**
2025	SSHRC Doctoral Award	**$80,000**
2025	Ontario Graduate Scholarship (Declined)	**$15,000**
2024	Mirka Ondrak Award	**NA**
2024	York Conference Travel Fund	**$500**
2024	Ontario Graduate Scholarship	**$15,000**
2024	York Academic Excellence Fund	**$1200**
2023	Canadian Psychological Association: Quantitative Methods Student Presentation Award	**NA**
2023	York Academic Excellence Fund	**$158**
2022	Ontario Graduate Scholarship	**$15,000**
2021	Certificate of Teaching Excellence Nominee (CCDP)	**NA**
2021	York Research Cost Fund	**$1,600**
2021	York Academic Excellence Fund	**$2,000**
2017-2020	Dean's List Scholar	**NA**
2020	Master's Training Scholarship (VISTA)	**$20,000**
2019	James Morrow Scholarship	**$1,000**
2018	Gordon Westaway Hilborn Scholarship	**$1,000**
2016	University of Toronto Entrance Scholarship	**$2,000**

Professional & Research Experience

Doctoral Student   2022 - Present

York University

Supervisor: *Dr. Ji Yeh Choi*

- Reviewed literature on the integration of machine learning with structural equation modelling
- Initiated collaborations with field experts
- Presented and shared research findings at scientific conferences

Research Assistant   2024

York University

Supervisors: *Dr. Michael Friendly*

- Reviewed and commented on Dr. Friendly's textbook on Multivariate Linear Models for both typographical and technical content.
- Recommended elaborations, additions, and omissions.
- Tags: *Research, Employment, Diversity of Experiences*

R Library Contributor   2023 - Present

[cSEM R Package]

- Revising library documentation
- Updated copyleft licensing to match latest standards
- Added Docker to facilitate computational reproducibility between developers
- Implemented Integrated-Generalised Structured Component Analysis

Statistical Consultant   2023 - Present

York University

[Statistical Consulting Service]

Master's Student   2020 - 2022

York University

Supervisors: *Drs. Thanujeni Pathman & W. Dale Stevens*

- Analyzed behavioral data from a cognitive neuroscience project on neurofeedback training collected in partnership with an industry collaborator
- Proposed and led a large online behavioral study examining the relationship between decision-making and memory using PsychoJS, Qualtrics and Prolific (N=527)
- Won additional funding to compensate participants for my online study

Teaching Assistant   2020 - Present

York University

- PSYC6132: Univariate Analysis II: Regression
- PSYC3430: Behaviour in Groups
- PSYC2260: Cognition
- PSYC2240: Biological Basis of Behaviour
- PSYC2130: Personality
- PSYC2030: Introduction to Research Methods
- PSYC1010: Introduction to Psychology

Research Assistant   2019 - 2020

Human Neuropsychology & Cognitive Science Lab

University of Toronto

Supervisors: *Dr. Morris Moscovitch & Nichole Bouffard*
  – *Paid Research Assistant (Summer 2020)*
  – *PSY406Y1: Spatial and Temporal Order in Associative Memory (Fall/Winter 2019 - 2020)*
  – *PSY405H1: Temporal Order and Associative Memory (Summer 2019)*

- Surveyed extant literature on temporal-based mnemonic strategies
- Programmed counter-balanced cognitive psychology experiment with randomized stimuli in E-Prime and PsychoPy/PsychoJS
- Collected data, performed data analyses in R and programmed a Lag-CRP & SRP graph generator in R

Research Assistant   2018 - 2019

Physiological Mechanisms of Memory in Health and Disease Lab

University of Toronto

Supervisors: *Dr. Kaori Takehara-Nishiuchi & Maryna Pilkiw*

Presentations, Workshops & Posters

What Happens When Sample Size is the Confound in a Multilevel Model?   2025

International Meeting of the Psychometrics Society 2025 Oral Presentation

Truong MS., Zhang, X., & Flora, DB.

What Happens When Sample Size is the Confound in a Multilevel Model?   2025

York University Quantitative Methods Area Forum

Truong MS., Zhang, X., & Flora, DB.

Machine Learning Structural Equation Modeling and Falsificatory Data Analysis   2024

Canadian Psychological Association 2024 12-Minute Talk

Truong MS. & Choi JY.

Machine Learning Structural Equation Modeling and Falsificatory Data Analysis   2024

Modern Modeling Methods 2024 30-Minute Talk

Truong MS. & Choi JY.

Planting Decision Trees: Human-Friendly Interpretation of Monte Carlo Simulations, Multiverse Analyses and Multivariate Posterior Distributions   2024

Canadian Psychological Association 2024 Conference Poster

Truong MS., Crone G., Alter, U., & Choi JY.

Planting Decision Trees: Human-Friendly Interpretation of Monte Carlo Simulations, Multiverse Analyses and Multivariate Posterior Distributions   2024

Modern Modeling Methods 2024 Conference Poster

Truong MS., Crone G., Alter, U., & Choi JY.

Regarding the Art and Science of Psychology: Psychometric Networks   2024

York University Quantitative Methods Area Forum

Truong MS.

Applications of Psychometric Networks

2024

Statistical Consulting Service Seminar Presentation

Truong MS.

Code Quality and Computational Reproducibility

2024

Statistical Consulting Service Seminar Presentation

Truong MS.

Chapter 16 (and 17) of McElreath's Statistical Rethinking 2E

2023

Statistical Consulting Service Seminar Presentation

Summarised seminar readings

Led seminar discussion with questions for discussion and actively encouraged participation from attendees

Truong MS.

Analyzing Data with R: How Much do my Findings Depend on my Analytical Decisions?

2023

R workshop introducing the R multiverse and targets package for advancing scientific research

11 Attendees

York University Quantitative Methods Workshop Series

Truong MS.

Leveraging Machine Learning within a Structural Equation Modelling Context for the Development and Testing of Theories

2023

12-Minute Talk – CPA2023 Annual National Convention

Truong MS. & Choi JY.

Summary and Reflection - A 2-part talk on my MA study where I studied the effects of learning on inhibiting biases

2022

York University Quantitative Methods Area Forum

Truong MS.

Does Visualizing Logical Relationships Help Inhibit Biased Judgments?

2022

CVR-VISTA Conference Poster

Truong MS., Pathman T., & Stevens WD.

PSYC2260 - Cognition: Guest Lecture on Reverse Inference in Neuroimaging & Autobiographical Memory

2021

Course Instructor: *Dr. Agnieszka Kopinska*

Technical Skills

Programming	MATLAB, Julia, C++, Stan, Bash, LaTeX, Quarto, R Markdown, Python, Advanced R
Statistics	Mixed-Effects/Multilevel Modeling, Monte Carlo Simulation Studies, Structural Equation Modeling, Categorical Data Analysis, Machine Learning, Computational Statistics, Longitudinal Data Analysis, Network Psychometrics
System Administration & Data Engineering	Wireguard VPN, Git, Singularity/Docker, Slurm, Arrow, duckdb, Linux
Stimulus Presentation	E-Prime, PsychoPy/PsychoJS
Online Studies & Surveys	Prolific, Qualtrics

Community Service

Tenure Review Committee 2024
- Reviewed and voted on tenure-track professor's tenure application as a student member.

Open Science Reviewer 2022 - Present
- Neurocognitive aging data release with behavioral, structural and multi-echo functional MRI measures

Canadian Psychological Association Quantitative Methods Section Abstract Reviewer 2023 - Present
- Reviewed and rated submitted abstracts for the CPA2024 Ottawa Convention

Extracurricular Activities

Psychology Graduate Student Association Research Symposium Organizer, Psychology Graduate Student Association 2024 - 2025

Psychology Department Representative & Treasurer, Psychology Graduate Student Association 2023 - 2024

Secretary, Psychology Graduate Student Association 2020 - 2021

Professional Development

Network Winter School 2024 2024

Cognitive Diagnosis Models: Theory and Applications in R 2025