

Quynh P. Vu

CONTACT INFORMATION

☎ (+ 1) 416-897-7663
✉ quynh.vu@mail.utoronto.ca
✉ pquynhvu@outlook.com

🌐 [pquynhvu](https://pquynhvu.com)
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🌐 pquynhvu.com

EDUCATION

University of Toronto Toronto, ON, Canada
M.Sc., Statistics Sept. 2022 – Apr. 2023
Main coursework: probability theory, mathematical statistics, applied statistics, probabilistic machine learning, and statistical consulting.

York University Toronto, ON, Canada
Specialized Honours BA., Statistics Sept. 2018 – Dec. 2021
First Class with Distinction
Main coursework: differential and integral calculus, linear algebra, real analysis, stochastic processes, numerical methods, ordinary and partial differential equations, programming (Python, MATLAB, R)

University of Manitoba Winnipeg, MB, Canada
B.Sc. in Statistics Jan. 2017 – Apr. 2018

ACADEMIC EXPERIENCE

University of Toronto Mississauga, ON, Canada
Department of Mathematical and Computation Sciences
Research Assistant. Advisor: Professor Luai Al Labadi June 2023 – Present
Developing a Bayesian non-parametric model validation framework for right-censored data based on Kullback-Leibler divergence and the Beta-Stacy processes.

University of Toronto Toronto, ON, Canada
Department of Statistical Sciences & Data Sciences Institute
Consultant. Advisor: Professor Samantha-Jo Caetano Jan. 2023 – Dec. 2023
Provided statistical advice to fellows and collaborators in other social and physical science disciplines on the appropriate statistical analysis approach to each respective project.

York University Toronto, ON, Canada
Department of Mathematics and Statistics
Research Assistant. Advisor: Professor Iain Moyles May 2021 – Aug. 2021
Performed agent-based modeling to study the effects of antiviral pharmaceutical or non-pharmaceutical interventions on mitigating aerial and surface transmissions of COVID-19 pathogens.

York University Toronto, ON, Canada
Department of Mathematics and Statistics

	<p>Research Assistant. Advisor: Professor Neal Madras May 2020 – Aug. 2020</p> <p>Constructed Markov chains for the 4321 and 321 pattern-avoiding affine permutations under periodic boundary conditions and conducted simulation experiments to validate the initial conjectures about the undistorted parallelism and the weak convergence limits of these classes of monotone-decreasing affine permutations.</p>	
PUBLICATIONS	<p>L. Labadi, Q. Vu. Kullback-Leibler divergence-based Model Validation for Right-Censored Data: Insights from Bayesian Non-parametric Methods – <i>to be submitted in 2024</i></p> <p>N.Madras, J. Troyka. (2021). Combinatorics Bounded Affine Permutations II. Avoidance of Decreasing Patterns, In Annals of Combinatorics, 2021.</p>	
HONORS AND AWARDS	Continuing Student Scholarship, York University	2019 & 2021
	Member of Dean's Honour Roll, York University	2019 & 2021
	Dean's Undergraduate Research Award, York University	2020 & 2021
CONTRIBUTED TALKS AND CONFERENCE PRESENTATIONS	<p><i>The Conundrum of COVID-19: The Case of Toronto</i></p> <p>2023 Statistical Society of Canada (SSC) Annual Meeting May 2023</p> <p><i>Stochastic modelling of COVID-19 transmission among visitors in theme parks</i></p> <p>2021 Summer Undergraduate Research Aug. 2021</p> <p>Canadian Undergraduate Mathematics Conference (CUMC) Aug. 2021</p> <p><i>Bounded affine pattern-avoiding permutations</i></p> <p>2020 Summer Undergraduate Research Aug. 2020</p>	
TEACHING AND MENTORSHIP	University of Toronto	Toronto, ON, Canada
	Teaching Assistant, STA304 Surveys, Sampling and Observational Data	Fall 2022 and Summer 2023
	Teaching Assistant, STA255 Statistical Theory	Winter 2023
	Teaching Assistant, STA221 The Practice of Statistics	Winter 2023
	Mentor, ASA DataFest	May 2023
	York University	Toronto, ON, Canada
	Tutor, Math Kangaroo	Winter 2020
	Tutor, Excel Lassonde	Fall 2018 – Winter 2019
SKILLS AND QUALIFICATIONS	<p>Software and Programming</p> <p>Proficient in: Python (numpy, scikit-learn, pandas, PyTorch, TensorFlow, matplotlib), R (lme4, rstan, tidyverse, ggplot2, splines2), Stan, Git, and LaTeX.</p> <p>Familiar with: SQL, C/C++</p> <p>Languages</p> <p>English (fluent), Vietnamese (native)</p>	