

EDUCATION	Department of Statistical Sciences, University of Toronto	Toronto, ON, Canada
	<i>Ph.D. Candidate in Statistical Sciences</i>	Sep 2021 - Pres
	• Advisors: Prof. Radu Craiu, Prof. Kieran Campbell • Research interests: Bayesian modeling and programming, scalable methods for complex health-care data (especially 'omics data), graph inference, hierarchical models, approximate Bayesian computation	
	Department of Statistical Science, Duke University	Durham, NC, USA
	<i>Ms.S. in Statistical Science</i>	Aug 2019-May 2021
	Tufts University	Medford, MA, USA
	<i>B.S. in Quantitative Economics and Mathematics</i>	Aug 2012-May 2016
AWARDS AND HONORS	NSERC Postgraduate Scholarship - Doctoral	Canada
	\$101,000 CAD, National Sciences and Engineering Research Council	Sep 2023-Aug 2026
	Queen Elizabeth II Graduate Scholarship in Science and Technology	Ontario
	\$15,000 CAD, Ontario Student Assistance Program	Sep 2022-Aug 2023
	Doctoral Recruitment Award	Toronto, ON
	\$5,000 CAD, University of Toronto	Sep 2021
CONFERENCE PRESENTATIONS	BEST Award for Master's Research in Statistical Science	Durham, NC
	\$500 USD, Duke University	Jun 2021
	1. Greenberg, M., Campbell, K., Craiu, R., (2026, June 29). Estimating Hierarchical Tissue Organization with Structure Learning. <i>2026 International Society for Bayesian Analysis World Meeting, Nagoya, Japan.</i> (Poster) 2. Greenberg, M., Campbell, K., Craiu, R., (2025, September 27). Restricted Search Space Graph MCMC via Birth-Death Processes. <i>The Fast and Curious 2: MCMC in Action, Toronto, ON, Canada.</i> 3. Greenberg, M., Campbell, K., Craiu, R., (2025, May 29). Restricted Search Space Graph MCMC via Birth-Death Processes. <i>The Statistical Society of Canada Annual Meeting 2025, Saskatoon, SK, Canada</i> Advances in Statistical Inference and Computing. 4. Greenberg, M., Campbell, K., Craiu, R., (2025, January 17). Restricted Search Space Graph MCMC via Birth-Death Processes. <i>University of Florida Department of Statistics' Annual Winter Workshop: 2025 Computational Methods in Bayesian Statistics, Gainesville, Florida, USA.</i> (Poster) 5. Greenberg, M., Craiu, R., Campbell, K. (2024, June 8). Restricted Search Space Graph MCMC via Birth-Death Processes. <i>International Chinese Statistics Association Canada Chapter Symposium, Niagara Falls, ON, Canada</i>, Advances in Monte Carlo Methods. 6. Greenberg, M., Craiu, R., Campbell, K. (2023, May 31). Restricted Search Space MCMC With Adaptive Weighting And Sparsity Parameterization For Graph Inference. <i>Statistics Society of Canada Meeting 2023, Ottawa, ON, Canada</i>, Advances In Bayesian Modelling And Computation. 7. Greenberg, M., Craiu, R., Campbell, K. (2023, May 19). Restricted Search Space MCMC Methods for Graph Inference. <i>The Fast and Curious: Modern Markov Chain Monte Carlo, Minneapolis, MN, United States</i> 8. Greenberg, M., Ma, L., Wang, Z., Ma, P., Sung, A. (2021, Aug 8). Logistic Tree Gaussian Processes (LoTGaP) for the Microbiome. <i>Joint Statistical Meetings 2021, Next-Generation Sequencing and High-Dimensional Data Section.</i>	

PREPRINTS
AND
PUBLICATIONS

1. **Greenberg, M.**, Campbell, K.R., Craiu, R.V., 2026. Restricted Search Space Graph MCMC via Birth-Death Processes. arXiv:2604.10863 [stat].
2. Giri, Vinay K., et al. "Chlorhexidine Gluconate Bathing Reduces the Incidence of Blood-stream Infections in Adults Undergoing Inpatient Hematopoietic Cell Transplantation." *Transplantation and Cellular Therapy*, Jan. 2021. ScienceDirect, doi:10.1016/j.jtct.2021.01.004.
3. Young, J.B., Gauthier-Loiselle, M., Bailey, R.A., Manceur, A.M., Lefebvre, P., **Greenberg, M.**, Lafeuille, M.H., Duh, M.S., Bookhart, B. and Wysham, C.H., 2018. Development of predictive risk models for major adverse cardiovascular events among patients with type 2 diabetes mellitus using health insurance claims data. *Cardiovascular diabetology*, 17(1), p.118.
4. Wysham, C.H., Gauthier-Loiselle, M., Bailey, R.A., Manceur, A.M., Lefebvre, P., **Greenberg, M.**, Duh, M.S., Young, J.B., 2019. Development of Risk Models for Major Adverse Chronic Renal Outcomes Among Patients with Type 2 Diabetes Mellitus Using Insurance Claims: A Retrospective Observational Study. *Current Medical Research and Opinion*, p.1.

WORK
EXPERIENCE

University of Toronto Statistical Sciences Department

Toronto, ON

Course Instructor

Jan 2025-May 2025

- Course co-instructor for *An Introduction to Statistical Reasoning and Data Science* (STA 130)

University of Toronto Statistical Sciences Department

Toronto, ON

Teaching Assistant

Aug 2021 - Present

- Course list includes: *Advanced Computational Methods for Statistics I* (STA 2311, Fall 2024), *Bayesian Statistics* (STA 365, Winters 2022, 2023, 2024, 2025, Fall 2025), *Statistical Consultation, Communication, and Collaboration* (STA 490, Full Year 2022-2023, 2023-2024, 2024-2025), *Introduction to Machine Learning* (STA 314, Fall 2022, Winter 2026), *Data Science in Practice* (STA 2546, Winter 2022)

Li Ma Statistics Lab/Duke University Hospital

Durham, NC

Research Assistant

May 2020 - Aug 2021

- Developed novel hierarchical models using Gaussian processes to analyze the dynamics of microbiome composition of patients in bone marrow transplant studies
- Designed a microbiome logistic tree package in R that includes microbiome methods for mixed effects modeling, Gaussian process modeling, and topic modeling

Analysis Group

Boston, MA

Analyst/Senior Analyst

Aug 2016 - May 2019

- Developed models to predict cardiovascular risk, chronic kidney disease, and chronic thromboembolic pulmonary hypertension (CTEPH) in Type II Diabetes Mellitus patients, which resulted in multiple academic journal articles
- Created an elasticity model to describe the price sensitivity of patients, physicians, and providers towards cholesterol lowering drugs in expert reports for intellectual property litigation
- Built machine learning tools (e.g. neural networks, random forests, Gaussian mixture models) to identify user types of opioids for the purposes of targeted treatment care
- Analyzed the source code for millions of files across programming languages for tax litigation; measured the similarity between pairs of files to understand how source code was modified by developers over time

Washington Nationals

Washington, DC

Baseball Operations Intern/Consultant

May 2015 - Apr 2016

- Derived, coded, and maintained a Markov Chain simulator for the team
- Worked on analytical problems using statistical learning methods (e.g. random forests, gradient boosted algorithms, and generalized linear models) in R

SKILLS

Programming: R, Python, C++, STAN, Matlab, LaTeX, Stata, SAS, SQL (MySQL, Oracle SQL Developer)

Languages: English, Spanish, Hebrew.

Miscellaneous: Top 100 Scrabble Player in North America; Came in 10th at 2017 North American Championships