

# Dylan Spicker

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## Education

- 2018 – Present    Ph.D., Statistics, University of Waterloo  
Area: Dynamic Treatment Regimes and Measurement Error  
Supervisors: Michael Wallace and Grace Yi
- 2017 – 2018      M.Math, Statistics, University of Waterloo  
Masters Essay: Measurement error and personalized medicine: error-prone tailoring covariates in dynamic treatment regimes.  
Supervisor: Michael Wallace
- 2014 – 2017      B.Comm., Finance, Smith School of Business (Queen's University)

## Academic Appointments

- 2017 – Present    Teaching & Research Assistant, Statistics, University of Waterloo
- 2017                Machine Learning and Data Analyst, Smith School of Business
- 2016 – 2017      Teaching Assistant, Computer Science, Queen's University
- 2015 – 2017      Research Assistant, Computer Science, Database Systems Lab. Queen's University

## Teaching

2022 (Winter)	STAT 437, Methods for Life History Analysis	University of Waterloo
2021 (Winter)	STAT 231, Statistics	University of Waterloo

## Statistical Consulting

2021 (Summer)	Web scraping e-commerce data (grocery data).	University of Waterloo
2021 (Winter)	Web scraping e-commerce data (e-cig products).	University of Waterloo

## Teaching Assistant

2020 (Fall)	Masters of Actuarial Science (Program)	University of Waterloo
2020 (Winter)	Masters of Actuarial Science (Program)	University of Waterloo
2019 (Fall)	Masters of Actuarial Science (Program)	University of Waterloo
2019 (Spring)	STAT 431, Generalized Linear Models	University of Waterloo
2019 (Spring)	STAT 331, Applied Linear Models	University of Waterloo
2019 (Winter)	STAT 431, Generalized Linear Models	University of Waterloo
2019 (Winter)	STAT 241, Statistics (Advanced Level)	University of Waterloo
2018 (Fall)	STAT 330, Mathematical Statistics	University of Waterloo
2018 (Fall)	STAT 443, Forecasting	University of Waterloo
2018 (Spring)	STAT 337, Intro. to Medical Statistics	University of Waterloo
2018 (Spring)	STAT 333, Applied Probability	University of Waterloo
2018 (Winter)	STAT 441, Classification	University of Waterloo
2018 (Winter)	STAT 443, Forecasting	University of Waterloo
2017 (Fall)	STAT 334, Probability Models for Business	University of Waterloo
2017 (Fall)	STAT 373, Regression and Forecasting Methods in Finance	University of Waterloo
2017 (Fall)	COMM 493, Analytics and AI for Business	Queen's University
2016 (Fall)	CISC 490, Deep Analytics using Watson	Queen's University
2015 (Fall)	CISC 490, Deep Analytics using Watson	Queen's University

## Selected Honours and Awards

2020 – Present	NSERC Postgraduate Scholarship Doctoral (PGS-D)
2020 (Declined)	Queen Elizabeth II Graduate Scholarship in Science and Technology
2019	Queen Elizabeth II Graduate Scholarship in Science and Technology
2018	Statistics & Actuarial Science Doctoral Entrance Award
2018	Statistics & Actuarial Science Chair’s Award
2017, 2018	University of Waterloo Graduate Scholarship
2017	Sutton Scholarship for Higher Education

## Publications and Presentations

### Peer-Reviewed Papers

- [1] **Spicker, D**, Wallace, MP. Measurement error and precision medicine: Error-prone tailoring covariates in dynamic treatment regimes. *Statistics in Medicine*. 2020; 39: 3732– 3755. <https://doi.org/10.1002/sim.8690>

### Pre-print Papers (Under Review)

- [1] **Spicker, Dylan**, Michael Wallace, and Grace Yi. Nonparametric Simulation Extrapolation for Measurement Error Models. arXiv preprint arXiv:2111.02863. 2021.
- [2] **Spicker, Dylan**, Michael P. Wallace, and Grace Y. Yi. Generalizations to Corrections for the Effects of Measurement Error in Approximately Consistent Methodologies. arXiv preprint arXiv:2106.07401. 2021.

### Books

- [1] Liebowitz, Jay, Chan, Yolande E., Jenkin, Tracy A., **Spicker, Dylan**, Paliszkievicz, Joanna, Babilioni, Fabio. (2018). *How Well Do Executives Trust Their Intuition*. Taylor and Francis. Boca Raton, Florida

### Presentations and Talks

- [1] **Spicker, Dylan**. The Harms of Historical Hyperbole. *Statistics and Actuarial Science Student Seminar Series* (2021, Waterloo)
- [2] **Spicker, Dylan**. Measurement Error Corrections with Non-IID Auxiliary Data. *Statistical Society of Canada general meeting* (2021, Online)

- [3] **Spicker, Dylan.** Dynamic Treatment Regimes and Measurement Error: A non-technical overview (where we mostly talk about video games!). University of Waterloo Undergraduate Mathematics Research Conference. (2019, Waterloo)
- [4] **Spicker, Dylan.** Measurement Error in Precision Medicine and Dynamic Treatment Regimes. Statistical Society of Canada general meeting (2019, Calgary)

## **Professional Activities, Competitions, and Additional Information**

- Statistical Society of Canada SARGC Video Competition. Winning Team (with Melissa Van Bussel). “Using Statistics to break down COVID-19 misconceptions” (March, 2021).
- Statistical Society of Canada Case Studies in Data Analysis Competition. Winning Team (with Melsisa Van Bussel). “Forecasting iTunes popularity out-of-sample: in-sample validation for longitudinal and matching methods.” (May, 2020).
- CANSSI National Case Study Competition 2019. Regional Winning Team; National Finalist (with Melissa Van Bussel). “’SuperLearn’ed Delays: Partial Domain Adaptation in Binary Classification with Complex and Noisy Data.” (November, 2019).
- Co-founder, Queen’s Data Analytics Association, 2016–2017
- Executive, Queen’s Commerce Society, 2014–2017
- Executive Team, “Career Mashup” (Queen’s University), 2016