

Ian Waudby-Smith

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Education

Carnegie Mellon University

PhD, Statistics

Advisor: [Aaditya Ramdas](#)

Pittsburgh, PA

2019–present

Carnegie Mellon University

MS, Statistics

GPA: 4.1/4.0

Pittsburgh, PA

2019–20

University of Waterloo

BMath, Joint Honours Pure Mathematics & Statistics (Co-op)

GPA: 3.9/4.0, Dean's Honours List

Waterloo, Canada

2013–18

Papers

Ian Waudby-Smith, Zhiwei Steven Wu, and Aaditya Ramdas. Locally private nonparametric confidence intervals and sequences. *Under review, ICML, 2022+*.

Ian Waudby-Smith, David Arbour, Ritwik Sinha, Edward H. Kennedy, and Aaditya Ramdas. Doubly robust confidence sequences for sequential causal inference. *Preprint arXiv:2103.06476, 2022+*.

Ian Waudby-Smith and Aaditya Ramdas. Estimating means of bounded random variables by betting. *Under revision, JRSS-B, 2022+*.

Ian Waudby-Smith, Philip B Stark, and Aaditya Ramdas. RiLACS: Risk limiting audits via confidence sequences. In *International Joint Conference on Electronic Voting (Best paper award)*, pages 124–139. Springer, 2021.

Ian Waudby-Smith and Aaditya Ramdas. Confidence sequences for sampling without replacement. *NeurIPS (Spotlight), 2020*.

Ian Waudby-Smith, A Simon Pickard, Feng Xie, and Eleanor M Pullenayegum. Using both time tradeoff and discrete choice experiments in valuing the EQ-5D: Impact of model misspecification on value sets. *Medical Decision Making, 2020*.

Ian Waudby-Smith, Nam Tran, Joel A Dubin, and Joon Lee. Sentiment in nursing notes as an indicator of out-of-hospital mortality in intensive care patients. *PloS one*, 13(6), 2018.

Experience

Adobe Inc.

Research Data Science Intern

Supervisors: Dr. David Arbour & Dr. Ritwik Sinha

◦ Nonparametric sequential causal inference — [link to paper](#).

San Jose, CA

Jun–Aug 2020

The Hospital for Sick Children (SickKids)

Research Student

Supervisor: Dr. Eleanor Pullenayegum

◦ Understanding model misspecification in quality-of-life surveys — [link to paper](#).

Toronto, ON

Apr–Aug 2019

Health Data Science Lab, University of Waterloo <i>Research Assistant</i> Supervisors: Dr. Joel Dubin & Dr. Joon Lee <ul style="list-style-type: none"> ◦ Sentiment analysis and mortality in intensive care patients — link to paper. 	Waterloo, ON 2016–18
Department of Statistics, University of Waterloo <i>Research Assistant</i> Supervisor: Dr. Pengfei Li <ul style="list-style-type: none"> ◦ Robust statistical tests for zero-inflated data — link to R package. 	Waterloo, ON Apr–Aug 2017
Cancer Care Ontario <i>Student Analyst - Strategic Analytics</i> Supervisor: Dr. Zhihui (Amy) Liu <ul style="list-style-type: none"> ◦ Multi-state models for forecasting chronic kidney disease progression. 	Toronto, ON Jan–Apr 2016
SS&C Technologies <i>Developer in R&D</i> <ul style="list-style-type: none"> ◦ Prototyped a distributed application on the Ethereum network. ◦ Built a conference management suite in Ruby on Rails. 	Toronto, ON Apr–Aug 2015

Computational Skills

Programming languages: R, Python, Haskell, Lisp, C

Technologies: git, SQL, *nix, CI/CD

Teaching Experience

Carnegie Mellon University <i>Graduate Teaching Assistant</i> <ul style="list-style-type: none"> ◦ 36-708: Statistical Methods in Machine Learning ◦ 36-462: Data Mining ◦ 36-401: Modern Regression 	Pittsburgh, PA 2019-21
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Awards

Carnegie Mellon University Department of Statistics and Data Science <i>Teaching Assistant of the Year</i>	Pittsburgh, PA 2021
Adobe Research <i>PhD Research Gift (\$30,000)</i>	Pittsburgh, PA 2020
University of Waterloo <i>David Johnston International Experience Award (\$2500)</i>	Waterloo, ON 2018
The Natural Sciences and Engineering Research Council of Canada <i>NSERC Undergraduate Student Research Award (\$4500)</i>	Waterloo, ON 2017
University of Waterloo <i>President's Research Award (\$3000)</i>	Waterloo, ON 2016–17
University of Waterloo <i>University of Waterloo President's Scholarship of Distinction (\$2000)</i>	Waterloo, ON 2014