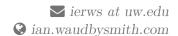
Ian Waudby-Smith



Education

2018 - present PhD, Biostatistics, University of Washington, Seattle, WA.

2013 - 2018 BMath, Joint Honours in Pure Mathematics & Statistics (Co-op), University of Waterloo, Waterloo, ON.
With Distinction - Dean's Honours List

Fall 2017 Mathematical Sciences (study abroad), Norwegian University of Science and Technology (NTNU), Trondheim, Norway.

Research Experience

May 2016 - **Research Assistant**, Health Data Science Lab, Waterloo, ON. present Supervisors: Dr. Joel Dubin & Dr. Joon Lee, Health Data Science Lab

• Sentiment analysis and mortality in intensive care patients — link to paper.

Apr - Aug 2017 **Research Assistant**, *University of Waterloo*, Waterloo, ON. Supervisor: Dr. Pengfei Li, Department of Statistics & Actuarial Science

Robust statistical tests for zero-inflated data — link to R package.

Jan - Apr 2017 **Research Assistant**, *University of Waterloo*, Waterloo, ON, Canada. Supervisor: Dr. Yu-Ru Liu, Department of Pure Mathematics

• Sieve methods in analytic number theory.

Jan - Apr 2016 **Student Analyst - Strategic Analytics**, Cancer Care Ontario, Toronto, ON. Supervisor: Dr. Zhihui (Amy) Liu, Dalla Lana School of Public Health, University of Toronto

• Multi-state models for forecasting chronic kidney disease progression - link to conference poster.

Teaching Experience

Sept - Dec 2018 **Graduate Teaching Assistant**, *University of Washington*, Seattle, WA. BIOST 511: Medical Biometry I

Industry Experience

Apr - Aug 2015 R&D Developer, DST Systems (c/o IFDS), Toronto, ON.

- Developed a MapReduce program to perform fuzzy string comparison.
- Wrote an XML to CSV converter for use with Hadoop's Distributed File System.
- Built a distributed application on the Ethereum blockchain network.
- Designed and built a Ruby on Rails application for a technology conference.

- Sept Dec 2014 **Developer**, PureFacts Financial Solutions, Toronto, ON.
 - Implemented an error handling pattern for fail-safe API calls.
 - Created a tool similar to 'git stash' for subversion.
 - Developed a web application for employee time-tracking.
- Jan Apr 2014 Software Developer, Leonardo Worldwide Corporation, Toronto, ON.
 - Managed and delegated support tasks to a team of developers.
 - Wrote scripts to optimize retrieval and storage of images and videos.
 - Created a video encoding scheme for multiple file formats and resolutions.

Publications

I. E. R. Waudby-Smith, N. Tran, J. A. Dubin, and J. Lee. Sentiment in nursing notes as an indicator of out-of-hospital mortality in intensive care patients. *PLOS ONE*, 13(6), 2018.

Presentations

- Jun 2016 Multi-state models for chronic kidney disease prevalence projections in Ontario, Statistical Society of Canada Annual Meeting, St. Catherines, ON. Poster presentation.
- Jun 2016 Multi-state models for chronic kidney disease prevalence projections in Ontario, Statistical Society of Canada Student Conference, St. Catherines, ON.

 Oral presentation.
- Apr 2016 Sequence analysis of patient-care pathways: A study of colorectal cancer in Ontario, Cancer Care Ontario Research Day, Toronto, ON.

 Poster presentation.

Projects

- Sept 2017 **rbtt**, *University of Waterloo*, Waterloo, ON.

 Developed and currently maintain an R package to perform robust inference on nonnegative, zero-inflated data. Created with Dr. Pengfei Li at the University of Waterloo.
- Sept 2015 HackTheNorth, University of Waterloo, Waterloo, ON.
 - Visualized the sentiment of tweets referring to Canadian political parties.
 - Retrieved tweets using the python library, tweepy.
- Feb 2015 **DeltaHacks**, McMaster University, Hamilton, ON.
 - Made Wikipedia accessible via SMS using Twilio and the Wikipedia API.

Computational Skills

Programming R, Python, Java, C++, Scheme, JavaScript languages

Technologies SQL, Linux, git, Hadoop, LATEX

Awards

- 2018 2019 **UW Top Scholar Recruitment Award**, *University of Washington*, Seattle, WA.
- 2017 2018 **David Johnston International Experience Award**, University of Waterloo, Waterloo, ON.
- 2016 2017 **NSERC Undergraduate Student Research Award**, The Natural Sciences and Engineering Research Council of Canada.
- 2016 2017 President's Research Award (1), University of Waterloo, Waterloo, ON.
- 2016 2017 President's Research Award (2), University of Waterloo, Waterloo, ON.
- 2013 2014 University of Waterloo President's Scholarship of Distinction, University of Waterloo, Waterloo, ON.
- 2012 2013 Top Ontario Scholar, Peel District School Board, Region of Peel, ON.