Ian Waudby-Smith

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Education

Carnegie Mellon University   **Pittsburgh, PA**
PhD, Statistics   *2019 - present*

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

Experience

SickKids   **Toronto, ON**
Research Assistant   *Apr - Aug 2019*
Supervisor: Eleanor Pullenayegum
- Large-scale distributed simulations to stress-test statistical models.

Health Data Science Lab   **Waterloo, ON**
Research Assistant   *2016 - 2018*
Supervisors: Joel Dubin & Joon Lee
- Sentiment analysis and mortality in intensive care patients — link to paper.

University of Waterloo   **Waterloo, ON**
Research Assistant   *Apr - Aug 2017*
Supervisor: Pengfei Li
- Robust statistical tests for zero-inflated data — link to R package.

Cancer Care Ontario   **Toronto, ON**
Student Analyst - Strategic Analytics   *Jan - Apr 2016*
Supervisor: Zhihui (Amy) Liu
- Multi-state models for forecasting chronic kidney disease progression - link to conference poster.

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

PureFacts Financial Solutions   **Toronto, ON**
Developer   *Sept - Dec 2014*
- 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.

Computational Skills

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

Technologies: Linux, git, SQL, LaTeX

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

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

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

Projects

University of Waterloo   **Waterloo, ON**
rbtt   *Sept 2017*
Developed and currently maintain an R package to perform robust inference on non-negative, zero-inflated data. Created with Pengfei Li at the University of Waterloo.

University of Waterloo   **Waterloo, ON**
HackTheNorth   *Sept 2015*
○ Visualized the sentiment of tweets referring to Canadian political parties during a federal election.

McMaster University   **Hamilton, ON**
DeltaHacks   *Feb 2015*
○ Made Wikipedia accessible via SMS using Twilio and the Wikipedia API.

Awards

NSERC Undergraduate Student Research Award   **Waterloo, ON**
The Natural Sciences and Engineering Research Council of Canada   *2017*

President's Research Award (2)   **Waterloo, ON**
University of Waterloo   *2017*

David Johnston International Experience Award   **Waterloo, ON**
University of Waterloo   *2017*

President's Research Award (1)   **Waterloo, ON**
University of Waterloo   *2016*