

# IAN WAUDBY-SMITH

Statistician | Software Engineer | PhD Student

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in [linkedin.com/in/iwaudbysmith](https://www.linkedin.com/in/iwaudbysmith)

📍 Pittsburgh, PA

## EXPERIENCE

### Research Student

#### The Hospital for Sick Children (SickKids)

📅 Apr 2019 – Aug 2019

📍 Toronto, ON

- Developed statistical models to estimate measures of quality-of-life.
- Ran simulations in R on a high-performance computing cluster.

### Research Assistant

#### Health Data Science Lab

📅 May 2016 – June 2018

📍 Waterloo, ON

- Performed sentiment analysis with Python on millions of clinical notes written by nurses — [link to paper](#).
- Used R to fit logistic regression and survival models.

### Research Assistant

#### University of Waterloo

📅 Apr 2017 – Aug 2017

📍 Waterloo, ON

- Made algorithms up to 20 times faster by parallelizing code on a high-performance computing cluster.
- Wrote an R package that makes  $t$ -tests more robust for zero-inflated data — [link to R package](#).

### Student Analyst

#### Cancer Care Ontario

📅 Jan 2016 – Apr 2016

📍 Toronto, ON

- Developed a model in R to predict prevalence of chronic kidney disease in Ontario — [link to conference poster](#)
- Wrote algorithms to quantify similarity between cancer treatments.

### R&D Developer

#### International Financial Data Services

📅 Apr 2015 – Aug 2015

📍 Toronto, ON

- Wrote a MapReduce program to perform fuzzy string comparison.
- Built a distributed application on the Ethereum blockchain network.

## PUBLICATIONS

### 📖 Journal Articles

- Ian Waudby-Smith, Nam Tran, et al. (2018). "Sentiment in nursing notes as an indicator of out-of-hospital mortality in intensive care patients". In: *PLOS ONE* 13.6.

### 👥 Conference Presentations

- Ian Waudby-Smith, Zhihui Amy Liu, et al. (2016). "Multi-state Models for Chronic Kidney Disease Prevalence Projections in Ontario". In: Statistical Society of Canada Annual Meeting.

## EDUCATION

### PhD, Statistics

#### Carnegie Mellon University

📅 2019 – present

### BMath, Pure Mathematics and Statistics (Co-op)

#### University of Waterloo

📅 2013 – 2018

With Distinction - Dean's Honours List

## PROGRAMMING

Proficient with **R**, **Python**, **Scheme**

Comfortable with **C++**, **Julia**, **Haskell**

## TOOLS

Proficient with **Linux**, **git**, **SQL**, **LaTeX**

Comfortable with **Hadoop**, **Ethereum**

## AWARDS

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

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

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

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