

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

Experience

- May 2016 - present **Research Assistant (Part-time)**, *University of Waterloo Health Data Science Lab*, Waterloo, ON.
Supervisors: Dr. Joel Dubin & Dr. Joon Lee, Health Data Science Lab
- Performed sentiment analysis on millions of electronic medical records.
 - Used logistic regression and survival models for inference/prediction.
 - Wrote a paper summarizing methods and results (submitted).
- Apr - Aug 2017 **Research Assistant (Full-time)**, *University of Waterloo*, Waterloo, ON.
Supervisor: Dr. Pengfei Li, Department of Statistics & Actuarial Science
- Wrote an R package to perform robust statistical tests (on CRAN).
 - Used parallel computing to reduce simulation time by more than 95%.
 - Proved (asymptotic) relationships between statistical tests of interest.
- 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
- Developed a model in R to predict prevalence of chronic kidney disease in Ontario.
 - Performed Monte Carlo simulation.
 - Wrote algorithms to quantify similarity between cancer treatments.
- 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.

Presentations & Projects

- Sept 2017 **R package on CRAN**, *rbtt*, Waterloo, ON.
Developed and currently maintain an R package to perform robust inference on non-negative, zero-inflated data. Created with Dr. Pengfei Li at the University of Waterloo.
- Jun 2016 **44th Annual Meeting**, *Statistical Society of Canada*, St. Catharines, ON.
Multi-state models for chronic kidney disease prevalence projections in Ontario (poster presentation).
- Jun 2016 **4th Student Conference**, *Statistical Society of Canada*, St. Catharines, ON.
Multi-state models for chronic kidney disease prevalence projections in Ontario (oral presentation).
- Apr 2016 **Research Day 2016**, *Cancer Care Ontario*, Toronto, ON.
Sequence analysis of patient-care pathways: A study of colorectal cancer in Ontario (poster presentation).
- Sept 2015 **Annual hackathon at the University of Waterloo**, *HackTheNorth*, Waterloo, ON.
 - Visualized the sentiment of tweets referring to Canadian political parties.
 - Retrieved tweets using the python library, tweepy.
- Feb 2015 **Annual hackathon at McMaster University**, *DeltaHacks*, Hamilton, ON.
 - Made Wikipedia accessible via SMS using Twilio and the Wikipedia API.

Computational Skills

- Programming languages **R, Python, Java, C++, Scheme, JavaScript**
- Technologies **SQL, Linux, git, Hadoop, L^AT_EX**

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.