BOXI LIN

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EDUCATION

University of Toronto *Sept. 2019 - Now*
Ph.D. Candidate in Biostatistics *Toronto, ON*

University of Waterloo *Sept. 2017 - Apr. 2019*
Master of Mathematics in Statistics, Co-op Program *Waterloo, ON*

University of Waterloo *Sept. 2014 - May 2017*
Bachelor of Mathematics, Honours Statistics & Computational Mathematics *Waterloo, ON*

WORKING EXPERIENCE

Dr. Philip Awadalla Laboratory *May 2019 - Aug. 2019*
Research Internship *Montreal, QC*

· Developed machine learning models to classify and characterize cancer evolutionary processes
· Contributed in the writing of manuscript and development of associated package

Ontario Institute for Cancer Research *May 2018 - Dec. 2018*
Biostatistics Training Initiative Intern *Toronto, ON*

· Conducted statistical analysis to quantify the evolutionary process of cancer samples
· Developed simulation-based computational tools for cancer patients clustering
· Provided statistical advice and counselling for geneticists and bioinformaticians at each stage of projects

POSTERS

Quantifying the Varying Selective Processes of Pre-Tumour and Tumour Evolution from High-Coverage Sequence Data
Armande Ang Houle, Kimberly Skead, ***Boxi Lin****, Pamela Mehanna, Mawusse Agbessi, Vanessa Bruat, John Bartlett, Paul Boutros, Stephen Wright, Lincoln Stein, David Soave and Philip Awadalla*

2018 Annual Meeting of the American Society of Human Genetics October 16-20, 2018

MP-BioPath: A computational tool for inferring the functional impact of mutational profiles on pathway level activity
Adam Wright, Marija Orlic-Milacic, Karen Rothfels, Martin H. Radfar, Quang M. Trinh, Cristina Baciu, Joel Weiser, Dionne M. Aleman, ***Boxi Lin****, David Soave, Lincoln Stein*

Cold Spring Harbor Meetings and Courses Program - Biological Data Science November 7-10, 2018

RESEARCH PROJECTS

Quantifying the selective processes behind cancer progression *Summer 2018, 2019*
Philip Awadalla Lab, Ontario Institute of Cancer Research *Toronto, ON*

· Conducted Bayesian model selection and parameter inference to characterize cancer progression
· Developed parallel computing strategies implemented on High Performance Computing clusters with SGE to accelerate the simulation process

Semiparametric inference for the ratio in means of multiple non-negative distributions with zero values *Jan. 2018 - May 2018*
Master's Research Paper, University of Waterloo *Waterloo, ON*

- Applied semiparametric method to construct confidence interval for the ratio in means of distributions with excess zero observations
- Conducting simulation study to compare the performance of our method with confidence interval based on MLE and Bootstrap method

Patient classification based on MP-BioPath outcome *Fall 2018*
Lincoln Stein Lab, Ontario Institute for Cancer Research *Toronto, ON*

- Developed permutation-based methods to assess, quantify and align the clustering structures of data
- Applied unsupervised machine learning to examine the effectiveness of pathway analysis tools in the guidance of cancer patients clustering

TEACHING EXPERIENCE

University of Waterloo Sept 2017 - April 2018
Teaching Assistant - Department of Statistics and Actuarial Science *Waterloo, ON*

- STAT 431 Generalized Linear Models and Their Applications, Winter 2019
- STAT 202 Introductory Statistics for Scientists, Winter 2018
- STAT 211 Introductory Statistics and Sampling for Accounting, Winter 2018
- STAT 330 Mathematical Statistics, Fall 2017
- STAT 231 Statistics, Fall 2017

AWARDS

Stats and ActSc Chair Award	*University of Waterloo, 2017*
Graduate Scholarship	*University of Waterloo, Fall 2017, Winter 2018*
International Masters Student Award	*University of Waterloo, Fall 2017, Winter 2018*
Second place in Intramural Soccer Leagues	*University of Waterloo, Dec 2015*

TECHNICAL STRENGTHS

Programming	Experienced in R, C/C++, Python, MATLAB; Familiar with CSS, HTML
Typography	Experienced in LaTeX and Microsoft Office
Cluster Computing	Familiar with SGE, HPCI