BUI THI QUYNH TRANG

Department of Statistics and Actuarial Science
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EDUCATION

University of Waterloo Waterloo, ON, Canada
Ph.D. in Statistics 2018-2024
   Thesis: Design and analysis of experiments on networks.
   Academic advisors: *Stefan H. Steiner and Nathaniel T. Stevens*

University of Waterloo Waterloo, ON, Canada
Master in Statistics 2017-2018
   Essay: Optimal trade execution in the nonlinear Almgren-Chriss model and the effects of a bid-ask spread.
   Academic advisor: *Alexander Schied*

Korean Advanced Institute of Science and Technology (KAIST) Daejeon, South Korea
Bachelor of Science in Mathematical Sciences and Business and Technology Management 2013-2017
   Essay: Flash crash: an investigation by multi-agent simulations.
   Academic advisor: *Sung-Ho Kim*

PUBLICATIONS

Published

[2] Marshall, M.E., Farrar, J., Massey, D.W., Thorne, L., Wu, A., **Bui, T.**. *In all fairness: A meta-analysis of the tax fairness-tax compliance literature.* Behavioral Research in Accounting (2023), 1-26, doi 10.2308/BRIA-2022-040.

[1] **Bui, T.**, Steiner, S.H., Stevens, N.T., *General Additive Network Effect Models.* New England Journal of Statistics and Data Science (2023), 1-19, doi 10.51387/23-NEJSDS29.

Working papers

[4] He, S., **Bui, T.**, Huang, Y., Zhang, W., Jian, J., Wong, S. W.K., Wirjanto, T.S.. *Understanding the Impact of Seasonal Climate Change on Canada's Economy by Region and Sector.* Submitted to Journal of Sustainable Finance & Investment.

[3] **Bui, T.**, Steiner, S.H., Stevens, N.T.. *Optimal Bayesian Designs for Experiments on Networks.* Work in progress.

[2] Landsman, V., Smith, P., Graudbard, B., Carnide, N., Mitani, A., Carillo-Garcia, I., Wang, L., **Bui, T.**. *Correcting for participation bias in nonprobability samples.* Work in progress.

[1] Zhao, N., Yu, J.Y., **Bui, T.**. *Bootstrap Kernel Mixture Model.* Work in progress.

Online Resources

[2] **Bui, T.**. *A First Course in Statistics.* An online book written based on my lecture notes for AFM 113, Spring 2022 at University of Waterloo.

[1] The Statistical Consulting and Collaborative Research Unit at University of Waterloo. *Topics in Statistical Consulting.* Coauthored Chapters 1, 3 and 6.

TALKS

[3] Statistical Society of Canada, *"General Linear Network Effects Model."* Analytic Approaches for Novel Data Sources, May 2023, Ottawa.

[2] Virtual ISI World Statistics Congress, *"General Linear Network Effects Model for Network Experimentation."* IPS69, July 2021, Virtual.

[1] Department of Statistics and Actuarial Science, University of Waterloo. *"Introduction to Experimental Design on Networks."* Student Seminar Series, November 2020, Waterloo, Canada.

TEACHING EXPERIENCE

Instructor

University of Waterloo
School of Accounting and Finance   Waterloo, ON, Canada
Analytic Methods for Business 2.   Spring, 2022

Teaching Assistant

University of Waterloo   Waterloo, ON, Canada
Department of Statistics and Actuarial Science   2017-2022

Introductory Financial Mathematics, Introductory Statistics for Scientists, Introductory Statistics and Sampling for Accounting, Probability (2X), Introduction to Statistical Problem Solving by Computer, Mathematical Statistics (2X), Applied Linear Models, Computer Simulation of Complex Systems, Computational Statistics and Data Analysis (2X), Applied Linear Models and Process Improvement for Business, Statistical Learning - Classification (2X).

Tutor

Private Tutor   2015, 2018
English as a second language, Programming in Economics.

Korean Advanced Institute of Science and Technology   Daejeon, South Korea
KAIST Freshman Team   2015-2016

Introduction to Programming, Calculus 1 and Calculus 2.

HONORS AND AWARDS

Statistical Society of Canada, Best Case Study in Data Analysis	2023
Statistical Society of Canada, Business and Industrial Statistics Student Research Presentation Award	2023
UWaterloo Statistics and Actuarial Science, Best Teaching Assistant Award	2020
UWaterloo Statistics and Actuarial Science Doctoral Entrance Award	2018
UWaterloo Prov-Doc Entrance Award for Women	2018
UWaterloo Statistics And Actuarial Sciences Department Chairs Award	2018
UWaterloo International Doctoral Student Award	2018-2022
UWaterloo Graduate Scholarship	2017-2018
UWaterloo International Masters Student Award	2017-2018
KAIST Department of Mathematical Sciences, Best Undergraduate Thesis Award	2016
KAIST Scholarship for Exchange Students	2015
KAIST Full Scholarship and Stipend	2013-2017
ISEF First Prize in Mechanical and Electrical Engineering	2012

ACTIVITIES

Leadership

Women in Mathematics Directed Reading Program   Waterloo, ON, Canada

Mentor   2023

- Design research projects, guide and supervise undergraduate students.

- Student: *Jaimee Yeung.* Project: *Visualizing and Analyzing Spatially Correlated Data.* (Winter 2023)

- Student: *Sagun Malwatkar.* Project: *Asymptotics for Linear Regression.* (Spring 2023)

- Student: *Jaimee Yeung, Sanika Poojary, Lareina Zhang.* Project: *Introduction to Explanable AI.* (Fall 2023)

Vietnamese Student Association in KAIST   Daejeon, South Korea

Vice President   2015-2017

- Manage funding and expenses of the association, which consists of over 70 students and alumni.

- Organize various welcome, get-together, and cultural events for the association's members.

International Scholar and Student Services Team at KAIST Daejeon, South Korea

Mentor 2014

- Serve as a mentor for international freshmen students.

- Organize and participate in cultural trips or events to help students adapt and explore the culture and lifestyle in South Korea.

Professional Development

Certificate of Graduate Student Instructor Waterloo, ON, Canada

Faculty of Mathematics, University of Waterloo 2022

- Complete seminars on presentation, assessment methods, math teaching and student learning.

- Conduct micro-teaching sessions and receive feedback from faculty teachers and fellow graduate students.

Certificate of Student Leadership Waterloo, ON, Canada

Student Success Office, University of Waterloo 2022

- Attend a series of workshops on team building, leadership, conflict management, communication skills and intercultural competence.

Volunteer

[5] *Volunteer*, STEM Fellowship Big Data Challenge, Virtual, 2023.

[4] *Volunteer*, ASA DataFest at University of Waterloo, Virtual, 2021, 2023.

[3] *Volunteer*, Waterloo Student Conference in Statistics, Actuarial Science and Finance, Waterloo, ON, Canada, October 2022.

[2] *Judge*, The Tenth Canadian Statistics Student Conference, Virtual, May 2022.

[1] *MC*, Ask me anything: Goldman Sachs, University of Waterloo, October 2019.

WORK EXPERIENCE

Statistical Consulting and Collaborative Research Unit Waterloo, ON, Canada

Statistical Consultant Jan 2020-now

- Consult 80+ research projects and Ph.D./Master theses in various fields (mathematics, engineering, science, health, arts, and environment) on data collection and data analysis procedures.

- Work as a data analyst on 2+ enhanced-service consulting projects.

- Serve as the administrative head consultant from September 2020 to April 2021.

- Co-author and edit the online resource: *Topics in Statistical Consulting*.

- Help train new consultants by preparing training documents, attending and consulting new appointments, and serving as a guest panelist at the university's Statistical Consulting course.

- Co-design an introductory data analysis workshop for graduate students.

Sun Life Financial   Waterloo, ON, Canada

Data Scientist Intern   May 2018-Aug 2018

- Develop an automated framework to extract, calculate, and analyze basis risk data of segregated funds using Microsoft VBA.

- Develop interactive data visualization framework for basis risk data using Tableau.

pwc Vietnam   Hanoi, Vietnam

Human Resource Consulting Intern   Jan 2017-Feb 2017

- Manage, extract, analyze, and visualize employee engagement and customer satisfaction data of Vietnam Commercial Bank using R and Microsoft Excel.

- Take initiative to write a VBA program to automate the report writing process, which decreases the project completion time from 2 months to 2 weeks.

- Take initiative to write a VBA toolbox to summarize survey data for future consultation projects.

SKILLS

Programming R, Python, MATLAB, VBA and LaTeX.

Software Microsoft Excel, Tableau, STATA, SQL.

Languages *(Decreasing in fluency)* Vietnamese, English, Korean, Mandarin, and French.

REFERENCES

Stefan H. Steiner

Professor, University of Waterloo

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200 University Avenue West
Waterloo, ON, Canada N2L 3G1

Email: *shsteiner@uwaterloo.ca*
Phone Number: 519-888-4567 x46506/41010
Website: *https://uwaterloo.ca/statistics-and-actuarial-science/profiles/stefan-steiner*

Nathaniel T. Stevens

Assistant Professor, University of Waterloo

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Jonathan Farrar

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Waterloo, Ontario N2L 3C5

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Dina Dawoud

Continuing Lecturer / Math Faculty Head Advisor, University of Waterloo

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