Qiong Zhang

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Contact Information

Department of Statistics
University of British Columbia
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Research Interests

Distributed Learning, Mixture Model, Optimal Transportation, Applications of Deep Learning

Education

University of British Columbia — 09/2017 – present
Vancouver, British Columbia, Canada
Ph.D. (Statistics)
Supervisor: Professor Jiahua Chen
Cumulative GPA: 4.0/4.0

University of British Columbia — 09/2015 – 09/2017
Vancouver, British Columbia, Canada
M.Sc. (Statistics)
Supervisor: Professor Jiahua Chen
Thesis Title: Small Area Quantile Estimation under Unit-Level Models
Cumulative GPA: 4.0/4.0

University of Science and Technology of China — 09/2011 – 06/2015
Hefei, Anhui, China
B.Sc. (Statistics), School of the Gifted Young
Cumulative GPA: 3.66/4.3

Publications

Under Review

- **Qiong Zhang** and Jiahua Chen. "Minimum Wasserstein Distance Estimator under Finite Location-scale Mixtures." Available at arXiv:2107.01323.
- **Qiong Zhang** and Jiahua Chen. "Distributed Learning of Finite Gaussian Mixtures." Available at arXiv:2010.10412.
- **Qiong Zhang** and Jiahua Chen. "A Unified Framework for Gaussian Mixture Reduction with Composite Transportation Distance." Available at arXiv:2002.08410.

Refereed Papers

- **Qiong Zhang***, Xin Ding*, William J Welch, "Classification Beats Regression: Counting of Cells from Greyscale Microscopic Images based on Annotation-free Training Samples" CAAI International Conference on Artificial Intelligence, 2021 (34.5% acceptance).
- Zhanshou Chen, Jiahua Chen, and **Qiong Zhang**. "Small area quantile estimation via spline regression and empirical likelihood." Survey Methodology 45-1 45, no. 1 (2019): 81-99.
- Philippe Phan, Brandon Budhram, **Qiong Zhang**, Carly S. Rivers, Vanessa K. Noonan, Tova Plashkes, Eugene K. Wai et al. "Highlighting discrepancies in walking prediction accuracy for patients with traumatic spinal cord injury: an evaluation of validated prediction models using a Canadian Multicenter Spinal Cord Injury Registry." The Spine Journal 19, no. 4 (2019): 703-710.
- **Qiong Zhang***, Bo Chang*, Shenyi Pan, and Lili Meng. "Generating handwritten Chinese characters using CycleGAN." In 2018 IEEE Winter Conference on Applications of Computer Vision (WACV), pp. 199-207. IEEE, 2018 (45.9% acceptance).

* Equal contribution.

Talks

Poster Presentation

- 2019 Statistical Society of Canada: Classification Beats Regression in Cell Counting from Microscopic Images.
- 2018 Joint Statistical Meeting Data Expo: Do I really need a jacket?
- 2018 Winter Conf. on Applications of Computer Vision: Generating handwritten Chinese characters using CycleGAN.

Contributed Talks

- 2021 UBC/SFU Joint Student Seminar: Distributed Learning of Finite Gaussian Mixtures.
- 2016 Statistics Canada: Estimation of small area means and quantiles using EBLUP, Pseudo-EBLUP and M-quantile approaches.

Honors and Awards

- Winner of Statistical Society of Canada Annual Meeting Case Study 1 — 2019
- Margaret Wylie Memorial Scholarship in Statistics — 2017
- International Doctoral Fellowship — 2017 – 2021
- Faculty of Science Graduate Award — 2017 – 2021
- CANSSI scholarship — 2016
- UBC International Tuition Award — 2015 – 2021
- USTC Outstanding Undergraduate Scholarship — 2013/2014
- USTC Outstanding Freshman Scholarship — 2011

Teaching Experience

Teaching Assistant, University of British Columbia

Held weekly labs and office hours, marked assignments and exams

- STAT 305: Introduction to Statistical Inference — 07/2021 – 08/2021
- STAT 251: Elementary Statistics — 05/2021 – 06/2021
- STAT 300: Intermediate Statistics for Applications — 01/2021 – 04/2021
- STAT 344: Sample Surveys — 09/2020 – 12/2020
- STAT 302: Introduction to Probability — 09/2019 – 04/2020
- STAT 461/561: Statistical Theory II — 01/2019 – 04/2019
- STAT 306: Finding Relationships in Data — 09/2018 – 12/2018
- STAT 200: Elementary Statistics for Applications — 09/2015 – 04/2018

Teaching Assistant, University of Science and Technology of China

Held weekly TA office hours, marked assignments and exams

- Linear Algebra (B1) — 02/2015 – 06/2015
- Linear Algebra (B2) — 09/2014 – 01/2015

Other

- UBC Trainer for Teaching Assistant — 09/2019 – present

- Instructional Skills Workshops 11/2019

Professional Experience & Activities

Internship

Huawei Noah's Ark Lab, Markham, ON 05/2020 – 09/2020
Research Intern
Computer Vision Team
Supervisor: Dr. Juwei Lu
Project Title: Cross Domain Few Shot Learning

Rick Hansen Institute, Vancouver, BC 05/2017 – 08/2017
Research Intern
International Cooperation and Corporate Statistical Methods Division
Supervisor: Dr. Nader Fallah
Project Title: Prediction for Prognosticating Independent Walking after Spinal Cord Injury

Statistics Canada, Ottawa, ON 06/2016 – 08/2016
Research Intern
International Cooperation and Corporate Statistical Methods Division
Supervisor: Dr. Yong You
Project Title: Estimation of Small Area Means and Quantiles using EBLUP, Pseudo-EBLUP and M-quantile Approaches

Organizer & Conference Volunteer

- Constance van Eeden Lecture Organizer 2019 – 2020
- UBC/SFU Joint Seminar Organizer 2017 – 2019
- 2018 JSM-ICSA Volunteer 08/2018
- ICSA-Canada Chapter 2017 Symposium Volunteer 08/2017

Reviewer

- Neural Information Processing Systems (NeurIPS)

Hardware and Software Skills

Programming: Proficient with R, Python; some experience with C, Matlab, SAS
Deep Learning API: Pytorch, Tensorflow
Office & Publishing: Microsoft Office, LaTeX