Qiong Zhang

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 (NeurlPS)

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