Qiong Zhang

Updated: September 2021

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Github: www.github.com/SarahQiong/

Homepage: https://sarahqiong.github.io/

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

EDUCATION

University of British Columbia Vancouver, British Columbia, Canada

Ph.D. (Statistics)

Supervisor: Professor Jiahua Chen

Cumulative GPA: 4.0/4.0

University of British Columbia

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

Hefei, Anhui, China

B.Sc. (Statistics), School of the Gifted Young

Cumulative GPA: 3.66/4.3

09/2011 - 06/2015

09/2017 - present

09/2015 - 09/2017

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 and Jihua Chen. "Robustness of Gaussian Mixture Reduction for Split-and-Conquer Learning of Finite Gaussian Mixtures" 3rd International Conference on Statistics: Theory and Applications (ICSTA), 2021.
- Qiong Zhang*, Hanwen Liang*, Peng Dai, and Juwei Lu. "Boosting the Generalization Capability in Cross-Domain Few-shot Learning via Noise-enhanced Supervised Autoencoder" International Conference on Computer Vision (ICCV), 2021 (25.9% acceptance).
- Qiong Zhang*, Xin Ding*, and 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).

Talks & Presentations

POSTER PRESENTATION

- 06/2019 Statistical Society of Canada: Classification Beats Regression in Cell Counting from Microscopic Images.
- 08/2018 Joint Statistical Meeting Data Expo: Do I Really Need A Jacket?
- 03/2018 Winter Conference on Applications of Computer Vision: Generating Handwritten Chinese Characters using CycleGAN.

Talks

- 08/2021 Joint Statistical Meeting: Distributed Learning of Finite Gaussian Mixtures.
- 07/2021 3rd International Conference on Statistics: Theory and Applications: Distributed Learning of Finite Gaussian Mixtures.
- 03/2021 UBC/SFU Joint Student Seminar: Distributed Learning of Finite Gaussian Mixtures.
- 03/2018 UBC/SFU Joint Student Seminar: Generating Handwritten Chinese Characters using CycleGAN.
- 08/2016 Statistics Canada: Estimation of Small Area Means and Quantiles using EBLUP, Pseudo-EBLUP and M-quantile Approaches.

Honors and Awards

\bullet 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, created and marked assignments and exams

• STAT 404: Design and Analysis of Experiments	09/2021 - 12/2021
• 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

^{*} Equal contribution.

• 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 Held weekly TA office hours, marked assignments and exams	OF CHINA
• Linear Algebra (B1)	02/2015 - 06/2015
• Linear Algebra (B2)	09/2014 - 01/2015
Other	
• TA Trainer for Teaching Assistant (UBC Statistics Department)	09/2019 – present
• Instructional Skills Workshops	11/2019
Internship	
	05/2020 00/2020
HUAWEI NOAH'S ARK LAB, MARKHAM, ON Research Intern	05/2020 - 09/2020
Computer Vision Team	
Supervisor: Dr. Juwei Lu Project Title: Cross Domain Few Shot Learning	
Troject Title. Cross Domain Tew Shot Learning	
RICK HANSEN INSTITUTE, VANCOUVER, BC Research Intern	05/2017 - 08/2017
Supervisor: Dr. Nader Fallah	
Project Title: Prediction for Prognosticating Independent Walking aft	er Spinal Cord Injury
STATISTICS CANADA, OTTAWA, ON	06/2016 - 08/2016
Research Intern International Comparation and Comparate Statistical Methods Division	
International Cooperation and Corporate Statistical Methods Division Supervisor: Dr. Yong You	
Project Title: Estimation of Small Area Means and Quantiles using E and M-quantile Approaches	EBLUP, Pseudo-EBLUP
Organizer & Conference Volunteer	
Constance van Eeden Lecture Organizer	2019 - 2020
• UBC/SFU Joint Student 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

Professional Experience & Activities

Programming: Proficient with R, Python; some experience with C, Matlab, SAS

Deep Learning API: Pytorch, Tensorflow Office & Publishing: Microsoft Office, LATEX