# MENGYU LI

Address: No. 59, Zhongguancun Street, Haidian District, Beijing 100872, P.R. China

Email: limengyu516@ruc.edu.cn     Tel.: (+86) 18811793569

GitHub / Google Scholar

## EDUCATION

**Institute of Statistics and Big Data, Renmin University of China** (RUC), Beijing, China

- Ph.D. Candidate in Statistics                                          2020–2025 (expected)
- Supervisor: Cheng Meng, Assistant Professor

**Department of Statistics, Chinese University of Hong Kong**, Hong Kong, China

- Visiting Student                                                       2023–2024 (expected)
- Supervisor: Xiaodan Fan, Professor

**School of Statistics, Beijing Normal University** (BNU), Beijing, China

- Bachelor in Statistics                                                               2016–2020
- Thesis advisor: Junlong Zhao, Professor

**Faculty of Science, University of British Columbia**, Vancouver, Canada

- Summer Program                                                                             2018

## RESEARCH INTERESTS

**Optimal transport; Subsampling in big data; AI in health care**

## AWARDS & HONORS

**Postgraduate level**

- **Joint Ph.D. Program** (¥50,000), RUC                                               2023–2024
- **Outstanding Innovative Talents Cultivation Funded Program** (¥70,000), RUC  2021–2024
- **Student Paper Award** in Joint Statistical Meetings (JSM), Statistics in Imaging Section, American Statistical Association (ASA)                                                       2023
  *Five winners per year*
- **Student Paper Award** in JSM, Sections on Statistical Computing and Graphics, ASA     2022
  *Five winners per year*
- **National Scholarship**, Ministry of Education of the P.R. China                        2023
- **Jingdong Special Scholarship**, RUC                                                    2023
- First-Class Academic Scholarship, RUC                                        2021, 2022, 2023
- Social Work and Volunteering Scholarship, RUC                                            2023
- Study Excellence Scholarship, RUC                                                        2022
- Merit Student, RUC                                                                       2021

**Undergraduate level**

- First-Class (or Second-Class) Jingshi Scholarship, BNU                          2017, 2018, 2019
- Academic Competition Scholarship, BNU                                                         2019
- Social Contribution Scholarship, BNU                                                             2017

## PUBLICATIONS & WORKING PAPERS

### Published

1. Xinlai Kang, **Mengyu Li**, Xuqiang Chen, Fangyu Li & Cheng Meng (2023). "A Hausdorff regression paradigm for interval privacy." IEEE Signal Processing Letters. In press.

2. **Mengyu Li**, Jun Yu, Tao Li & Cheng Meng (2023). "Importance sparsification for Sinkhorn algorithm." Journal of Machine Learning Research, 24(247), 1–44.
   *Student Paper Award in JSM2023, Statistics in Imaging Section*

3. **Mengyu Li**, Jun Yu, Hongteng Xu & Cheng Meng (2023). "Efficient approximation of Gromov-Wasserstein distance using importance sparsification." Journal of Computational and Graphical Statistics, 32(4), 1512–1523.

4. **Mengyu Li** & Junlong Zhao (2022). "Communication-efficient distributed linear discriminant analysis for binary classification." Statistica Sinica, 32, 1343–1361.

### Under review & submitted

1. **Mengyu Li**, Jun Yu, Tao Li & Cheng Meng. "Core-elements for large-scale least squares estimation." Submitted to IEEE Transactions on Neural Networks and Learning Systems.
   *Student Paper Award in JSM2022, Sections on Statistical Computing and Graphics*

2. **Mengyu Li**, Jingyi Zhang & Cheng Meng. "Nonparametric additive models for billion observations." Major revision in Journal of Computational and Graphical Statistics.

3. Yukuan Hu, **Mengyu Li**, Xin Liu & Cheng Meng. "Sampling-based methods for multi-block optimization problems over transport polytopes." Submitted to Mathematics of Computation.

4. Chengshuo Du, Han Hao, **Mengyu Li**, Tao Li, Cheng Meng, & Jun Yu (Alphabetical order). "Ensemble pruning with conditional Wasserstein distance measure." Submitted to IEEE Transactions on Neural Networks and Learning Systems.

## INVITED TALKS

- **Capital Statistics and Data Science High-Level Forum**, Beijing, China          Jul. 2023
  *Efficient algorithms for large-scale optimal transport problems*

## TEACHING EXPERIENCE

### Teaching Assistant

- Data Mining                                                                                        Spring 2021
  *My duties included lecturing exercise lessons, homework preparation and grading, etc.*

## WORKING EXPERIENCE

### Department of Statistics, Chinese University of Hong Kong, Hong Kong, China

- Research Assistant                                                                          Nov. 2023 – present

## PROGRAMMING & DEVELOPMENT

### Programming

- R, Python, MATLAB

### Package development

- **Spar-Sink** (`https://github.com/Mengyu8042/Spar-Sink`)
  Python3 *implementation of the paper "Importance sparsification for Sinkhorn algorithm"*

- **Spar-GW** (`https://github.com/Mengyu8042/Spar-GW`)
  Python3 *implementation of the paper "Efficient approximation of Gromov-Wasserstein distance using importance sparsification"*

- **Core-elements** (`https://github.com/Mengyu8042/Core-elements`)
  R *implementation of the paper "Core-elements for large-scale least squares estimation"*