

Qinbin Li

UTown Residence, National University of Singapore

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EDUCATION

National University of Singapore

Ph.D. - Computer Science

- Advisor: Prof. [Bingsheng He](#)

Huazhong University of Science and Technology

B.Eng. - Computer Science

- Advisors: Prof. [Hai Jin](#) and Prof. [Song Wu](#)

Singapore

Aug, 2018 - Present

Wuhan, China

Sep, 2014 - Jun, 2018

RESEARCH INTEREST

Machine Learning, Privacy, Federated Learning

PUBLICATIONS

Preprint

A Survey on Federated Learning Systems: Vision, Hype and Reality for Data Privacy and Protection

- [Qinbin Li](#), Zeyi Wen, Zhaomin Wu, Sixu Hu, Naibo Wang, Yuan Li, Xu Liu, Bingsheng He
- *arXiv preprint arxiv:1907.09693* 2019.

Model-Agnostic Round-Optimal Federated Learning via Knowledge Transfer

- [Qinbin Li](#), Bingsheng He, Dawn Song
- *arXiv preprint arxiv:2010.01017* 2020.

The OARF Benchmark Suite: Characterization and Implications for Federated Learning Systems

- Sixu Hu, Yuan Li, Xu Liu, [Qinbin Li](#), Zhaomin Wu, Bingsheng He
- *arXiv preprint arXiv:2006.07856* 2020.

Federated Learning on Non-IID Data Silos: An Experimental Study

- [Qinbin Li](#)^{*}, Yiqun Diao^{*}, Quan Chen, Bingsheng He
- *arXiv preprint arxiv:2102.02079* 2021.

2021

Model-Contrastive Federated Learning

- [Qinbin Li](#), Bingsheng He, Dawn Song
- *The Conference on Computer Vision and Pattern Recognition CVPR 2021.*

2020

Practical Federated Gradient Boosting Decision Trees

- [Qinbin Li](#), Zeyi Wen, Bingsheng He
- *Thirty-Fourth AAAI Conference on Artificial Intelligence. AAAI 2020.*

Privacy-Preserving Gradient Boosting Decision Trees

- **Qinbin Li**, Zhaomin Wu, Zeyi Wen, Bingsheng He
- *Thirty-Fourth AAAI Conference on Artificial Intelligence. AAAI 2020.*

ThunderGBM: Fast GBDTs and Random Forests on GPUs

- Zeyi Wen, Hanfeng Liu, Jiashuai Shi, **Qinbin Li**, Bingsheng He, Jian Chen
- *Journal of Machine Learning Research. JMLR 2020.*

2019

Adaptive Kernel Value Caching for SVM Training

- **Qinbin Li**, Zeyi Wen, Bingsheng He
- *IEEE Transactions on Neural Networks and Learning Systems. TNNLS 2019.*

Exploiting GPUs for Efficient Gradient Boosting Decision Tree Training

- Zeyi Wen, Jiashuai Shi, Bingsheng He, Jian Chen, Kotagiri Ramamohanarao, **Qinbin Li**
- *IEEE Transactions on Parallel and Distributed Systems. TPDS 2019 (best paper award).*

2018

ThunderSVM: A Fast SVM Library on GPUs and CPUs

- Zeyi Wen, Jiashuai Shi, **Qinbin Li**, Bingsheng He, Jian Chen
- *Journal of Machine Learning Research. JMLR 2018.*

PROJECTS

A developer of **ThunderSVM**.

- A fast SVM library on GPUs and CPUs.
- Has attracted 1000+ stars on [GitHub](#).

A developer of **ThunderGBM**.

- A fast GBDTs and random forests library on GPUs.
- Has attracted about 500 stars on [GitHub](#).

HONORS and AWARDS

- Research Achievement Award, School of Computing, National University of Singapore, 2020.
- Outstanding Graduates, Huazhong University of Science and Technology, 2018.
- Samsung Scholarship, 2016
- Outstanding Undergraduates in Term of Academic Performance, Huazhong University of Science and Technology, 2016.
- Excellent Student, Huazhong University of Science and Technology, 2014, 2015.
- National Scholarship, Ministry of Education of P.R.China, 2014.

SERVICES and TUTORIALS

- Program committee member of NeurIPS 2020, AAAI 2021, ICLR 2021.
- Organizer of IJCAI 2020 tutorial "A Tutorial on Federated Learning Systems: Comparative Studies and Hand-on Demonstrations".