# Oinbin Li

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# **EDUCATION**

### **National University of Singapore**

Singapore

Ph.D. - Computer Science

Aug, 2018 - Present

o Advisor: Prof. Bingsheng He

Huazhong University of Science and Technology

Wuhan, China

B.Eng. - Computer Science

Sep, 2014 - Jun, 2018

o Advisors: Prof. Hai Jin and Prof. Song Wu

## RESEARCH INTEREST

Machine Learning, Privacy, Federated Learning

# **PUBLICATIONS**

### 2020

### **Practical Federated Gradient Boosting Decision Trees**

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

### **Privacy-Preserving Gradient Boosting Decision Trees**

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

### ThunderGBM: Fast GBDTs and Random Forests on GPUs

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

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

- o Sixu Hu, Yuan Li, Xu Liu, Qinbin Li, Zhaomin Wu, Bingsheng He
- o arXiv preprint arXiv:2006.07856 2020.

#### 2019

# A Survey on Federated Learning Systems: Vision, Hype and Reality for Data Privacy and Protec-

- o Qinbin Li, Zeyi Wen, Zhaomin Wu, Sixu Hu, Naibo Wang, Bingsheng He
- o arXiv preprint, arXiv:1907.09693 2019.

### Adaptive Kernel Value Caching for SVM Training

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

### **Exploiting GPUs for Efficient Gradient Boosting Decision Tree Training**

- o Zeyi Wen, Jiashuai Shi, Bingsheng He, Jian Chen, Kotagiri Ramamohanarao, Qinbin Li
- o IEEE Transactions on Parallel and Distributed Systems. TPDS 2019.

#### 2018

### ThunderSVM: A Fast SVM Library on GPUs and CPUs

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

# **PROJECTS**

### A developer of **ThunderSVM**.

- A fast SVM library on GPUs and CPUs.
- o Has attracted 1000+ stars on GitHub.

### A developer of **ThunderGBM**.

- A fast GBDTs and random forests library on GPUs.
- o Has attracted about 500 stars on GitHub.

### **HONORS** and **AWARDS**

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

### **SERVICES and TUTORIALS**

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