Yuqing Zhu

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https://jeremy43.github.io/

RESEARCH INTERESTS

My research interest is learning theory, including differential privacy [1, 2, 3, 4, 7], domain adaptation [5, 6] and off-policy reinforcement learning. I am also the co-creator of AutoDP, an open-source library that allows researchers to use advanced mechanisms in differential privacy and obtain strong guarantees correctly.

EDUCATION

University of California, Santa Barbara   *2018.09– now*
Ph.D. in Computer Science

Nanjing University   *2014.09–2018.06*
B.S in Computer Science
National Elite Program

REWARDS

2021 Google PhD Fellowship Recipient

PUBLICATION AND PREPRINT

[1] Improving Sparse Vector Technique with Renyi Differential Privacy
Yuqing Zhu and Yu-Xiang Wang.
Thirty-fourth Conference on Neural Information Processing Systems (**NeurIPS-2020**).

[2] Private-kNN: Practical Differential Privacy for Computer Vision
Yuqing Zhu, Xiang Yu, Manmohan Chandraker, Yu-Xiang Wang
Computer Vision and Pattern Recognition (**CVPR-2020**).

[3] Poisson Subsampled Renyi Differential Privacy
Yuqing Zhu and Yu-Xiang Wang
36th International Conference on Machine Learning (**ICML-2019**).

[4] Revisiting Model-Agnostic Private Learning: Faster Rates and Active Learning
Chong Liu, Yuqing Zhu, Kamalika Chaudhuri and Yu-Xiang Wang
Accepted by **AISTATS-2021** and **JMLR-2022**.

[5] Model-Agnostic Private Learning with Domain Adaptation
Yuqing Zhu, Chong Liu and Yu-Xiang Wang
CSS Theory and Practice of Differential Privacy Workshop (**TPDP-2020**).

[6] Voting-based Approaches For Differentially Private Federated Learning
Yuqing Zhu, Xiang Yu, Yi-Hsuan Tsai, Francesco Pittaluga, Masoud Faraki, Manmohan chandraker, Yu-Xiang Wang

[7] Optimal Accounting of Differential Privacy via Characteristic Function
Yuqing Zhu, Jinshuo Dong, Yu-Xiang Wang
CSS Theory and Practice of Differential Privacy Workshop (**TPDP-2021**).

RESEARCH EXPERIENCE

Google Research, Federated Learning Team   2021.06 - 2021.09
Advisor: Shanshan Wu and Galen Andrew   *WFH*

· Investigated weighting approaches in differentially private federated learning.

NEC Laboratories America, Media Analytics   2020.06 - 2020.09
Advisor: Dr. Xiang Yu   San Jose, CA
   · **Differentially private federated learning**

   Proposed a voting-based solution for differentially private federated learning. See Publication [6].

Microsoft Research Asia (MSRA) Visual Computing Group   2017.06 - 2017.11
Advisor: Dr. Jifeng Dai   MSRA, Beijing, China
   · **Video Instance-aware segmentation**

   Created an Official Implementation for Flow-Guided-Feature-Aggregation, and the git repo has already accumulated **500 stars**.github

LAMDA Lab   2016.05 - 2017.09
Advisor: Prof .Wu-Jun LI, Prof. Zhi-Hua Zhou   NJU,Nanjing,China
· Proposed a deep discrete hybrid recommendation system for image & text recommendation.

ACADEMIC SERVICE

Reviewer : NeurIPS-21, AISTATS-21, ICLR-20, ICML-20, ICML-19, UAI-19, NeurIPS-19

TECHNICAL SKILLS

Computer Languages   Python, C, Matlab
Deep Learning Frameworks   Pytorch/Tensorflow/MXNet/Caffee