Xiaohan Chen

Contact

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GitHub: https://github.com/xhchrn

Education Background

University of Texas at Austin — **Austin, TX, U.S.**
Ph.D. in Electrical and Computer Engineering — Aug, 2020 — Present
Visual Informatics Group
Supervisor: Prof. Zhangyang (Atlas) Wang

Texas A&M University — **College Station, TX, U.S.**
Ph.D. in Computer Science — Aug, 2017 — Aug, 2020
Supervisor: Prof. Zhangyang (Atlas) Wang

University of Science and Technology of China — **Hefei, Anhui, China**
B.S. in Mathematics and Applied Mathematics — Sep, 2013 — Jun, 2017
B.E. in Computer Science (Double Degree)

Professional Experience

Research Intern — Jun, 2020 — Aug, 2020
Microsoft Cloud & AI, Bellevue, WA, U.S.
Supervisor: Dr. Yu Cheng and Dr. Zhe Gan

Research Intern — Jun, 2019 — Nov, 2019
Max Planck Institute for Intelligent Systems, Tübingen, Germany
Supervisor: Dr. Krikamol Muandet and Dr. Siyu Tang

Research Interests

- *Sparse Optimization and Inverse Problems*
- *Learning to Optimize, and Meta Learning*
- *Efficient Deep Learning, and Sparse Neural Networks (Lottery Ticket Hypothesis)*

Conference Publications

* The authors equally contributed to the paper.

1. Several double blind submissions under NeurIPS review.
2. H. Heaton, **X. Chen**, Z. Wang, W. Yin, "Safeguarded Learned Convex Optimization", under review in *Journal of Machine Learning Research* (JMLR).
3. Z. Huo, A. Pakbin, **X. Chen**, N. Hurley, Y. Yuan, X. Qian, Z. Wang, S. Huang, B. Mortazavi, "Uncertainty Quantification for Deep Context-Aware Mobile Activity Recognition and Unknown Context Discovery", *International Conference on Artificial Intelligence and Statistics* (**AISTATS**), 2020.
4. **X. Chen***, Y. Zhao*, Y. Wang, C. Li, Y. Xie, Z. Wang, Y. Lin, "SmartExchange: Trading Higher-cost Memory Storage/Access for Lower-cost Computation", *IEEE/ACM International Symposium on Computer Architecture* (**ISCA**), 2020.

5. H. You, C. Li, P. Xu, Y. Fu, **X. Chen**, Y. Lin, Z. Wang, R. Baraniuk , "Drawing Early-Bird Tickets: Toward More Efficient Training of Deep Networks", *International Conference on Learning Representations* (**ICLR**), 2020.
6. **X. Chen***, Z. Jiang*, Y. Wang*, P. Xu, Y. Zhao, Y. Lin, Z. Wang, "E2-Train: Energy-Efficient Deep Network Training with Data-, Model-, and Algorithm-Level Saving", *In Proceedings of Advances in Neural Information Processing Systems* (**NeurIPS**), 2019.
7. E. Ryu, J. Liu, S. Wang, **X. Chen**, Z. Wang, W. Yin, "Plug-and-Play Methods Provably Converge with Properly Trained Denoisers", *International Conference on Machine Learning* (**ICML**), 2019.
8. **X. Chen***, J. Liu*, Z. Wang, W. Yin, "ALISTA: Analytic Weights Are As Good As Learned Weights in LISTA", *International Conference on Learning Representations* (**ICLR**), 2019.
9. **X. Chen***, J. Liu*, Z. Wang, W. Yin, "Theoretical Linear Convergence of Unfolded ISTA and Its Practical Weights and Thresholds", *In Proceedings of Advances in Neural Information Processing Systems* (**NeurIPS**), 2018.
10. N. Bansal, **X. Chen**, Z. Wang, "Can We Gain More from Orthogonality Regularizations in Training Deep Networks?", In Proceedings of Advances in Neural Information Processing Systems (**NeurIPS**), 2018.

Honors and Awards

Scholarships

- ICLR Travel Award — Mar, 2019
- NeurIPS Travel Award — Oct, 2018
- AAAI Student Scholarship — Dec, 2017
- Outstanding New Student Award, **Top Class Award** — Sep, 2013

Others

- COMAP's Mathematical Contest in Modeling (MCM), **Honorable Mention** — Apr, 2016
- RoboGame of USTC, **the 2^{nd} place** — Nov, 2015
- Outstanding Young Volunteer, USTC — Jul, 2014

Service and Teaching

- *Reviewer*: NeurIPS (2019, 2020), CVPR (2020, 2021), ICML (2020), ICLR (2020), ECCV (2020), ICCV (2019), ACCV (2020), WACV (2019, 2020, 2021)
- *Teaching Assistant*: CSCE 633, Machine Learning, Texas A&M University (2018, 2019)
- *Student Volunteer*: AAAI 2018

Technical Skills

Deep Learning Frameworks	PyTorch, TensorFlow, MXNet
Computer Languages	C, C++, Python, MATLAB
Tools	Git, Vim, Visual Studio, Mathematica
LaTeX	