Xiaohan Chen

Contact

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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.

- 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.
- 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

– 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 FrameworksPyTorch, TensorFlow, MXNetComputer LanguagesC, C++, Python, MatlabToolsGit, Vim, Visual Studio, MathematicaLATEX