Yao Li

Michigan State University
Department of Mathematics
Department of Computational Mathematics, Science and Engineering

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Education

2017-Pres. Ph.D. - *Michigan State University (MSU)*, East Lansing, MI, USA

Major: Applied Mathematics, expected 2022
Minor: Computational Mathematics, Science and Engineering, expected 2022
Advisor: Prof. Ming Yan

2013-2017 B.S. - *Southern University of Science and Technology (SUSTech)*, Shenzhen, China

Major: Pure and Applied Mathematics, *summa cum laude*, 2017
Project: *On ADMM for Three Separable Operators and Accelerated Algorithms*
Advisor: Prof. Bingsheng He

Honors & Awards

Apr 2019 2018-2019 Award for Outstanding Early Student in CMSE, *MSU*
Apr 2019 Douglas A. Spragg Endowed Fellowship in Mathematics, *MSU*
May 2016 Eminence Scholarship, 2nd Prize, *SUSTech*
2013-2017 College Start-up Scholarship, *SUSTech*

Research Interests

Convex Optimization, Large-scale Optimization, Decentralized Algorithm

Professional Experience

SS 2019 Teaching Assistant: MTH314, Matrix Algebra I, *MSU*
FS 2019 Teaching Assistant: MTH133, Calculus II, *MSU*
US 2019 Graduate Intern: Applied Machine Learning Summer Research Fellowship, *Los Alamos National Laboratory*

Project: *Matrix Equilibration for Preconditioned ADMM*
Mentor: Brendt Wholberg, Youzuo Lin
SS 2019 Teaching Assistant: MTH314, Matrix Algebra I, *MSU*
FS 2018 Grader: MTH847, Part Differential Equations I, *MSU*

2017-2019 Math Learning Center Tutor, *MSU*

Workshops & Conferences

Jun 2019 *Workshop on Recent Developments on Mathematical/Statistical approaches in DAta Science (MSDAS)*, The University of Texas at Dallas, Dallas, TX

Talks & Presentations

Aug 2019 Title: *Preconditioned ADMM on (Convolutional) Sparse Coding*
Los Alamos National Laboratory, Los Alamos, NM

Publications

[1] Xiaorui Liu, **Yao Li**, Jiliang Tang, and Ming Yan. A double residual compression algorithm for efficient distributed learning. *arXiv preprint arXiv:1910.07561*, 2019.

[2] **Yao Li** and Ming Yan. On linear convergence of two decentralized algorithms. *arXiv preprint arXiv:1906.07225*, 2019.

Languages & Skills

LaTeX, MATLAB, Python, C/C++, Java