## Yao Li

Michigan State University Address: C102 Wells Hall

Department of Mathematics

Department of Computational Mathematics,

619 Red Cedar Road East Lansing, MI 48824

Science and Engineering Email: liyao6@msu.edu

Website: yaoleoli.github.io

#### **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**

**Jul 2021** Graduate School Dissertation Completion Fellowship, *MSU* 

**Apr 2020** Herbert T. Graham Scholarship Fund in Mathematics, *MSU* 

**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**

**FS 2020** Teaching Assistant: MTH314, Matrix Algebra I, MSU

SS 2020 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: Dr. Brendt Wholberg, Dr. Youzuo Lin Teaching Assistant: MTH314, Matrix Algebra I, *MSU* 

**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**

Aug 2021	The 30th International Joint Conference on Artificial Intelligence (IJCAI-21)
	Montreal-themed Virtual Reality
<b>Aug 2021</b>	Modeling and Optimization: Theory and Applications (MOPTA)
	Lehigh University, Bethlehem, PA, US
<b>May 2021</b>	The Ninth International Conference on Learning Representations (ICLR)
	Virtual Meeting
<b>Aug 2020</b>	The 23rd International Conference on Artificial Intelligence and Statistics (AISTATS)
	Palermo, Italy Virtual Meeting

**Jun 2019** Workshop on Recent Developments on Mathematical/Statistical approaches in DAta Science (MSDAS)

The University of Texas at Dallas, Dallas, TX, US

### **Talks & Presentations**

Aug 2021 Tutorial: Communication Efficient Distributed Learning

**Montreal-themed Virtual Reality** 

**Aug 2021** Title: A Communication Compression Decentralized Algorithm for Convex Composite Optimization

Lehigh University, Bethlehem, PA, US

Aug 2019 Title: Preconditioned ADMM on (Convolutional) Sparse Coding

Los Alamos National Laboratory, Los Alamos, NM, US

# Languages & Skills

LATEX, MATLAB, Python, C/C++, Java