# Zhichao Jia

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#### **EDUCATION**

### Georgia Institute of Technology, Atlanta, GA

Present

 $\operatorname{PhD}$  Student in Operations Research

Advised by Guanghui (George) Lan

# Johns Hopkins University, Baltimore, MD

Dec. 2022

Master of Science and Engineering in Applied Mathematics and Statistics

Thesis: First-Order Methods for Nonsmooth Nonconvex Functional Constrained Optimization with or without Slater Points Advised by Benjamin Grimmer

#### Sun Yat-Sen University, Guangzhou, China

Jun. 2021

Bachelor of Science in Information and Computing Science

Thesis: On an FFHE-Inspired Method for Effectively Solving Differential Riccati Equations

Advised by Tao Wang

### **PUBLICATIONS**

"First-Order Methods for Nonsmooth Nonconvex Functional Constrained Optimization with or without Slater Points"

Z. Jia, Benjamin Grimmer

SIAM Journal on Optimization 2025

"Goldstein Stationarity in Lipschitz Constrained Optimization"

Benjamin Grimmer, Z. Jia

Optimization Letters 2023

#### Papers in Progress

"Nearly Optimal  $L_p$  Risk Minimization"

Z. Jia, Guanghui Lan, Zhe Zhang

2024

"Switch Updating in SPSA Algorithm for Stochastic Optimization with Inequality Constraints"

Z. Jia, Ziyi Wei, James C. Spall

2022

#### TALKS

"Nearly Optimal  $L_n$  Risk Minimization"

International Conference on Continuous Optimization (ICCOPT), Los Angeles, USA

Jul. 2025 Oct. 2024

INFORMS Annual Meeting, Seattle, USA

Oct. 2024

"First-Order Methods for Nonsmooth Nonconvex Functional Constrained Optimization with or without Slater Points"

International Symposium on Mathematical Programming (ISMP), Montréal, Canada

Jul. 2024

## PATENTS

"Mechanical Arm Motion Planning Method based on Fast and Flexible Full-Pure Embedding Thought" China Patent 202110154750.4

Tao Wang, Yuning Ding, Z. Jia, Zi'ang Fang

Issued 02/04/2021

#### ACADEMIC SERVICE

Journal Review:

Computational Optimization and Applications

Journal of Optimization Theory and Applications

Mathematical Programming

Optimization Letters

SIAM Journal on Optimization

# AWARDS

| JHU Applied Mathematics and Statistics Master's Research Award                | Apr. 2023  |
|---|------------|
| Ranked 6th in Datathon@LISH   | Feb. 2022  |
| Third Prize in China Undergraduate Mathematical Contest in Modeling (top 40%) | Sept. 2019 |

# ${\rm Skills}$

 $\begin{array}{l} Languages:\ Chinese-Mandarin\ (native),\ English\ (fluent)\\ Programming:\ C,\ C++,\ Python,\ Matlab,\ SQL,\ R \end{array}$