

## EDUCATION

---

**Georgia Institute of Technology**, Atlanta, GA Present  
PhD Student in Operations Research  
Advised by Guanghui (George) Lan  
Courses: Linear/Nonlinear/Discrete Optimization, Stochastic Processes, Simulation, Reinforcement Learning

**Johns Hopkins University**, Baltimore, MD Dec. 2022  
Master of Science and Engineering in Applied Mathematics and Statistics; GPA: 4.0/4.0  
Thesis: *First-Order Methods for Nonsmooth Nonconvex Functional Constrained Optimization with or without Slater Points*  
Advised by Benjamin Grimmer  
Courses: Nonlinear/Stochastic/Large-Scale Optimization, Control Theory, Statistics

**Sun Yat-Sen University**, Guangzhou, China Jun. 2021  
Bachelor of Science in Information and Computing Science; GPA: 3.7/4.0  
Thesis: *On an FFHE-Inspired Method for Effectively Solving Differential Riccati Equations*  
Advised by Tao Wang  
Courses: Real Analysis, Linear Algebra, Numerical Methods, Statistics, Optimization, Machine Learning, Data Mining

## PAPERS IN PROGRESS

---

“Goldstein Stationarity in Lipschitz Constrained Optimization”  
Benjamin Grimmer, **Z. Jia** 2023

“First-Order Methods for Nonsmooth Nonconvex Constrained Optimization”  
**Z. Jia**, Benjamin Grimmer 2022

“Switch Updating in SPSA Algorithm for Stochastic Optimization with Inequality Constraints”  
**Z. Jia**, Ziyi Wei, James C. Spall 2022

## PUBLICATIONS

---

“SPSA-Based Switch Updating Algorithm for Constrained Stochastic Optimization”  
**Z. Jia**, Ziyi Wei *Conference on Information Science and Systems 2023*

## 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

## AWARDS

---

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

## SKILLS

---

Languages: Chinese-Mandarin (native), English (fluent)  
Programming: C, C++, Python, Matlab, SQL, R