

Yixuan Hua

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Education

Princeton University, Princeton, NJ, United States

Aug 2022 - Present

Ph.D. in Operations Research & Financial Engineering

Advisor: A.A. Ahmadi, B. Stellato

Peking university, Beijing, China

Sep 2018 - July 2022

B.S. in Mathematics, Overall GPA: 3.82/4.0, Major Rank: 5/37

Research Experience

Graduate Research

Disjunctive sum of squares

Apr 2023 - Present

Professor: A.A. Ahmadi, B. Stellato

Undergraduate Research

Neural recovery

July 2021 - May 2022

Professor: M. Pilanci

Algorithms for 5G LDPC decoding

Apr 2020 - June 2022

Professor: Z. Wen

Publications

Y. Wang, **Y. Hua**, E. J. Candès, M. Pilanci. Overparameterized ReLU Neural Networks Learn the Simplest Models: Neural Isometry and Exact Recovery. arXiv preprint (2022) arXiv:2209.15265.

Honors and Awards

Merit Student, 2018-2019 academic year

The Suzhou Industrial Park Scholarship, 2018-2019 academic year

First Prize, The Jiang Zehan Mathematical Contest in Modeling, 2019

First Prize, The Mathematics Competition of Chinese College Students, 2019

First Prize in Zhejiang Province, National High School Mathematics League, 2016 & 2017

Silver Medal, China Mathematics Olympiad, 2016

Skills

Programming: Python, R, MATLAB

Relevant Coursework

At Princeton University:

Special Topics in Information Sciences and Systems, Probability in High Dimension, Linear and Nonlinear Optimization, Convex and Conic Optimization, Statistical Theory and Methods, Statistical Foundations of Data Science, Probability Theory, Stochastic Calculus

At Peking University:

Mathematics: Mathematical Analysis (I)(II)(III), Advanced Algebra (I)(II), Geometry, Abstract Algebra, Ordinary Differential Equations, Probability Theory, Theory of Functions of Complex Variables, Functions of Real Variables, Applied Stochastic Process, Applied Partial Differential Equations, Set Theory and Graph Theory

Computer Science: Introduction to Computing, Data Structures, Foundations of Machine Learning

Applied Mathematics: An Introduction to applied mathematics, Numerical Algebra, Convex Optimization, Optimization Methods, Algorithms for Big Data Analysis, Introduction to Numerical Analysis, Methods of Stochastic Simulations