

Ziqian Zhong

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Education

Massachusetts Institute of Technology,

Candidate for B.S. in Computer Science and Mathematics

GPA: 5.0/5.0

Selected Coursework: Computation Structures (A+), Elements of Software Construction (A+), Advanced Data Structure (A+), Advanced Complexity Theory (A), Quantitative Methods for Natural Language Processing (A), Machine Learning (A), Fundamentals of Statistics (A), Combinatorial Theory (A), Number Theory I (A)

08/2020 – present

Cambridge, MA

Publications

The Clock and the Pizza: Two Stories in Mechanistic Explanation of Neural Networks, *Ziqian Zhong*, Ziming Liu*, Max Tegmark, Jacob Andreas; Oral @ NeurIPS 2023* [🔗](#)

06/2023

On Problems Related to Unbounded SubsetSum: A Unified Combinatorial Approach, *Mingyang Deng*, Xiao Mao*, Ziqian Zhong*; SODA 2023* [🔗](#)

02/2022

New Additive Approximations for Shortest Paths and Cycles, *Mingyang Deng*, Yael Kirkpatrick*, Victor Rong*, Virginia Vassilevska Williams*, Ziqian Zhong*; ICALP 2022* [🔗](#)

07/2022

New Lower Bounds and Upper Bounds for Listing Avoidable Vertices, *Mingyang Deng*, Virginia Vassilevska Williams*, Ziqian Zhong*; MFCS 2022* [🔗](#)

08/2022

Experiences

Deep Learning Undergraduate Researcher,

Massachusetts Institute of Technology

Took part in deep learning research with a focus on interpreting and understanding neural networks. Worked with Neil Thompson, Jacob Andreas, and Ziming Liu.

08/2022 – present

Cambridge, MA

Theoretical Computer Science Undergraduate Researcher,

Massachusetts Institute of Technology

A member of the research team guided by Virginia Vassilevska Williams. Co-discovered several new results in graph theory and combinatorics. Resulted in several published papers.

10/2021 – 05/2022

Cambridge, MA

Algo Developer Intern, Hudson River Trading

Conducted both market and algorithmic research.

05/2023 – 08/2023

New York, NY

Talks

New Approach for Unbounded SubsetSum, *SODA 2023*

01/2023
Florence, Italy

Selected Awards

Gold Medal, Fourth Place, *International Olympiad in Informatics 2019*

08/2019

First Place, *ICPC North America Championship 2022*

05/2022


Honorable Mention, *Alibaba Global Mathematics Competition 2022*

06/2022

Honorable Mention, *Putnam Mathematical Competition 2022*

12/2022

Selected Projects

CP Ideas, <https://fjzzq2002.github.io/cpideas/> 

07/2022

A tool that generates competitive programming problems by fine-tuning GPT-3. Collected and cleaned data scrapped from various online judges.