

HAOTIAN CHEN

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EDUCATION

Peking University, School of Mathematical Sciences
B.S. in Statistics

Sept. 2017 - June 2021
Advisor: Prof. Xiangzhong Fang

Coursework: *Mathematical Analysis, Advanced Algebra, Set Theory and Graph Theory, Functions of Real Variables, Mathematical Logic, Probability Theory, Mathematical Statistics, Applied Stochastic Process, Applied Regression Analysis, Applied Multivariate Statistical Analysis, etc.*

Activities: Peking University Youth Volunteers Association

Research Interests: Statistical Machine Learning; Large Language Models; Conformal Prediction

INTERNSHIP

University of Pennsylvania
Research Intern (Remote)

Aug. 2023 - present
Mentor: Prof. [Weijie Su](#)

PROJECTS

The relationship between NBA star performance and team wins and losses

Research Report of Statistical Learning

- Processed and analyzed the data of different players, used multiple statistical learning methods and established classification models between player performance and team wins and losses, such as Logistic regression, linear discriminant analysis, decision trees, and support vector machines, etc.
- Used AIC criterion to attempt to improve the model and further draw conclusion

An exploration of hierarchical speculative decoding

Research Project during Internship

- Proposed a new hierarchical variant of speculative decoding for accelerating LLMs
- Discussed the theoretical performance of the algorithm and compared it with the original version, found improvements under certain configurations and analyzed possible reasons

PROFESSIONAL EXPERIENCES

Guangzhou Zhixin High School
Math competition coach

Guangzhou, China
Aug. 2021 - July 2022

- Tutored students to win the provincial first prize in *China National High School Mathematics League*
- Participated in the *Guangzhou Top Innovative Talent Program*
- Involved in question-setting for the *Guangzhou High School Mathematics Competition*

Math teacher

Aug. 2021 - July 2023

- Taught two YuanPei classes in the senior year of high school (usually impossible for new teachers)
- Achieved the highest score among young teachers in the school's teaching competition

SELECTED HONORS AND AWARDS

1st Prize of Guangzhou High School Mathematics Teacher Problem-Solving Competition (top 10 of the city's 2000 math teachers)	2023
Outstanding Achievement Award for the Guangzhou Strong Foundation Program	2022
3rd Prize of National College Student Physics Competition	2019
2nd Prize of Chinese Physics Olympiad	2016
3rd Prize of National High School Mathematics League	2016

LANGUAGE, SKILLS AND INTERESTS

Language	Chinese (native), English (fluent)
Programming	C, Python, R
Interests	Badminton, Swimming, Music, etc.