

# JINTAO ZHANG

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## EDUCATION

<b>Tsinghua University</b> <b>Master of Science in Computer Science and Technology (GPA: 3.92)</b> <b>Supervisor:</b> Prof. Guoliang Li <a href="#">🔗 Homepage</a> .	<b>Sep. 2021 – Jun. 2024 (Expected)</b> <b>Beijing, China</b>
<b>Xidian University</b> <b>Bachelor of Science in Computer Science and Technology (GPA: 3.85)</b>	<b>Sep. 2017 – Jun. 2021</b> <b>Shannxi, China</b>

## SELECTED PUBLICATIONS

\* indicates equal contributions

[SIGMOD 2024]	PACE: Poisoning Attacks on Learned Cardinality Estimation. <a href="#">Accept Notification</a>
Research Paper	<b>Jintao Zhang</b> , Guoliang Li, Chao Zhang, Chengliang Chai The ACM Special Interest Group on Management of Data, 2024
[ICDE 2023]	AutoCE: An Accurate and Efficient Model Advisor for Learned Cardinality Estimation. <a href="#">PDF</a>
Research Paper	<b>Jintao Zhang</b> , Chao Zhang, Guoliang Li, Chengliang Chai 39th IEEE International Conference on Data Engineering, 2023
[VLDB 2022]	Learned Cardinality Estimation: Design Space Exploration and Comparative Evaluation. <a href="#">PDF</a>
Research Paper	Ji Sun*, <b>Jintao Zhang*</b> , Zhaoyan Sun, Guoliang Li, Nan Tang. 48th International Conference on Very Large Databases, 2022

## RESEARCH STATEMENT

- I have a strong passion for researching the **intersection of artificial intelligence (AI) and data systems**, specifically leveraging AI algorithms and models, such as presentation learning algorithms or language models, to enhance database performance.

## SELECTED AWARDS

<b>Siebel Scholars Scholarship (35,000 USD, Less than 100 awarded globally/year)</b>	May. 2023
<b>SIGMOD 2021 Excellent Volunteer</b>	Jun. 2021
<b>President's Award of Xidian University (Top 0.02%), Xiaomi Scholarship</b>	Dec. 2020
<b>Tsinghua University First Class Scholarship</b>	2020 & 2021
<b>China National Scholarship</b>	2019 & 2020

## RESEARCH EXPERIENCES

<b>Poisoning attacks on Learned Cardinality Estimation</b> <b>Database Laboratory, Tsinghua University</b>	<b>Aug. 2022 – Nov. 2023</b> <b>Beijing, China</b>
<ul style="list-style-type: none"><li>Contribution as the first author: Proposed an effective and covert poisoning attack method on learned cardinality estimation in a black-box setting, reducing PostgreSQLs end-to-end query performance by 10x.</li></ul>	
<b>Auto Advisor for Learned Cardinality Estimation</b> <b>Database Laboratory, Tsinghua University</b>	<b>Jul. 2021 – Dec. 2022</b> <b>Beijing, China</b>
<ul style="list-style-type: none"><li>Contribution as the first author: Proposed a model advisor for learned cardinality estimation based on deep graph contrastive learning, enhancing PostgreSQL's end-to-end query performance by 30%.</li></ul>	
<b>Cardinal Estimation Test Benchmark + Experimental Platform</b> <b>Database Laboratory, Tsinghua University</b>	<b>Oct. 2020 – Jul. 2021</b> <b>Beijing, China</b>
<ul style="list-style-type: none"><li>Contribution as a co-first author: Designed a testbed for existing state-of-the-art learned cardinality estimation methods, conducted a comprehensive evaluation, and released a corresponding benchmark.</li></ul>	

## PROFESSIONAL EXPERIENCES

- Teacher Assistant.** "Programming Fundamentals" in Tsinghua University. Feb. 2022 – Present
- Oral Reports.** An offline presentation in ICDE 2023 and an online presentation in VLDB 2022.

## EXTRACURRICULAR ACTIVITIES

- Class Assistant.** Department of computer science and technology - Class 51. Feb. 2022 – Present
- Deputy Minister.** Graduate Student Union Publicity Department. Sep. 2021 – Mar. 2022