JINTAO ZHANG

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EDUCATION

Tsinghua University	**Sep. 2021 – Jun. 2024 (Expected)**
Master of Science in Computer Science and Technology (GPA: 3.92)	**Beijing, China**

Supervisor: Prof. Guoliang Li 🔗 Homepage.

Xidian University	**Sep. 2017 – Jun. 2021**
Bachelor of Science in Computer Science and Technology (GPA: 3.85)	**Shannxi, China**

SELECTED PUBLICATIONS

* indicates equal contributions

[SIGMOD 2024] PACE: Poisoning Attacks on Learned Cardinality Estimation. Accept Notification
Full Paper **Jintao Zhang**, Guoliang Li, Chao Zhang, Chengliang Chai
ACM SIGMOD International Conference on Management of Data, 2024

[ICDE 2023] AutoCE: An Accurate and Efficient Model Advisor for Learned Cardinality Estimation. PDF
Full Paper **Jintao Zhang**, 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. PDF
Full Paper Ji Sun*, **Jintao Zhang***, 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 representation learning algorithms or large language models, to enhance database performance.

SELECTED AWARDS

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

RESEARCH EXPERIENCES

Poisoning attacks on Learned Cardinality Estimation	**Aug. 2022 – Nov. 2023**
Database Laboratory, Tsinghua University	**Beijing, China**

- 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.

Auto Advisor for Learned Cardinality Estimation	**Jul. 2021 – Dec. 2022**
Database Laboratory, Tsinghua University	**Beijing, China**

- 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%.

Cardinal Estimation Test Benchmark + Experimental Platform	**Oct. 2020 – Jul. 2021**
Database Laboratory, Tsinghua University	**Beijing, China**

- 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.

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