Curriculum Vitae

Personal Information

Name	Chao Zhang
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Bio

Chao Zhang is an Assistant Professor at Renmin University of China. He did the postdoc with Prof. Guoliang Li at Database group, Tsinghua University. He was awarded the Ph.D. degree in Computer Science, at University of Helsinki, Finland. His research topic focuses on performance benchmarking and optimization for cutting-edge data systems including HTAP databases, AI-Enhanced DBMSs, Cloud-Native Databases, and Big Data Systems.

Education

2016–2021	**University of Helsinki at Finland**, Doctoral student in Computer Science
2015–2016	**Renmin University of China**, Doctoral student in Computer Science
2008–2015	**Guizhou University of China**, Bachelor and Master Degrees in Computer Science

Academic Services (PC Member):

- ACM SIGMOD 2024-2025
- IEEE ICDE 2023

Publications

1. **Chao Zhang**, Guoliang Li, and Tao Lv. "HyBench: A New Benchmark for HTAP Databases." Proceedings of the VLDB Endowment 17.5 (2024): 939-951.

2. **Chao Zhang**, Guoliang Li, et al. "HTAP Databases: A Survey." IEEE Transactions on Knowledge and Data Engineering (2024).

3. Jintao Zhang, **Chao Zhang**, Guoliang Li, et al. "PACE: Poisoning Attacks on Learned Cardinality Estimation." Proceedings of the ACM on Management of Data 2.1 (2024): 1-27.

4. Haowen Dong, **Chao Zhang**, Guoliang Li, et al. "Cloud-Native Databases: A Survey." IEEE Transactions on Knowledge and Data Engineering (2024).

5. Jintao Zhang, **Chao Zhang**, Guoliang Li, et al. "Autoce: An accurate and efficient model advisor for learned cardinality estimation." 2023 IEEE 39th International Conference on Data Engineering (ICDE). IEEE, 2023.

6. Guoliang Li, **Chao Zhang**. "HTAP databases: What is new and what is next." Proceedings of the 2022 International Conference on Management of Data. 2022.

7. Guoliang Li, Haowen Dong and **Chao Zhang**. "Cloud databases: New techniques, challenges, and

opportunities." Proceedings of the VLDB Endowment 15.12 (2022): 3758-3761.

8. **Chao Zhang**, Jiaheng Lu. "Selectivity Estimation for Relation-Tree Joins". In SSDBM, 2020.

9. **Chao Zhang**, Jiaheng Lu. "Holistic Evaluation in Multi-Model Databases Benchmarking". In Distributed and Parallel Databases (DPD), 2019.

10. **Chao Zhang**, Jiaheng Lu, Pengfei Xu, and Yuxing Chen. "UniBench: A Benchmark for Multi-Model Database Management Systems" In TPCTC, 2018.

11. **Chao, Zhang**, Jiaheng Lu. "Parameter Curation and Data Generation for Benchmarking Multi-model Queries". In VLDB 2018@PhD.

12. Lu Jiaheng, Zhen Hua Liu, Pengfei Xu, and **Chao Zhang**. "UDBMS: road to unification for multi-model data management." In ER workshop, 2018.

Awards & Scholarships

- International Student Scholarship in Finland (EDUFI), at University of Helsinki
- China Scholarship (CSC), at Renmin University
- National Graduate Student Scholarship in China, at Guizhou University

Teaching Services:

Transaction management and query optimization, Winter Semester 2019, teaching assistant
Introduction to big data management Autumn Semester 2019, teaching assistant
Introduction to big data management Autumn Semester 2018, teaching assistant
Introduction to big data management Autumn Semester 2017, teaching assistant

Projects:

2019–2020	Huawei Research Project: "Graph Databases with Multi-model Data Management and Integrated Optimizer, main contributor in system design and implementation", and patent writing, €129K
2018–2019	Huawei Industrial Project: "Unified Interface for Multi-model Data Access on Industry Heterogeneous Data", main contributor in database benchmarking and selection, €120K
2017–present	Academy of Finland Research Project: "Holistic Query Optimization and Transaction Processing in Multi-model Data Management", main contributor in database benchmarking, €560K
2015–2016	National High-tech Project from Ministry of Science and Technology, China: "Massive Web data integration and benchmarking", participant in the final evaluation, US$ 1.1M
2013–2014	Graduate Innovation Project in Guizhou University: "Movie recommendation system based on matrix factorization", Single PI, 3K RMB