Zheng LUO

UCLA Computer Science Department
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EDUCATION

University of California, Los Angeles (UCLA)   Sep. 2024 – Present
Ph.D. in Computer Science
Advisor: Remy Wang

University of Zurich (UZH)   Sep. 2021 – Jun. 2024
M.Sc. in Informatics
Advisor: Ahmet Kara and Dan Olteanu

University of Chicago   Aug. 2015 – Dec. 2016
M.Sc. in Financial Mathematics

Wuhan University   Sep. 2011 – Jun. 2015
B.S. in Economics & Mathematics

RESEARCH EXPERIENCE

Computer Science Department, UCLA   Sep. 2024 – Present
Graduate Student Researcher

- Exploring algorithmic improvements to optimize query processing in relational databases

Data Systems and Theory Group, UZH   Sep. 2023 – Jun. 2024
Master's Thesis, Evaluation of Conjunctive Queries with Daynamic and Static Relations

- Characterized the conjunctive queries that can be evaluated efficiently in databases with static and dynamic relations
- Derived the theoretical upper and lower bounds of preprocessing time for such queries with formal proofs

Database Technology Group, UZH   Jul. 2022 – Sep. 2023
Master's Project, Robust Data Structure for Connectivity Queries on Dynamic Graphs

- Designed a novel data structure for efficient and scalable connectivity query processing

TEACHING EXPERIENCE

Department of Informatics, UZH   Feb. 2023 – Jun. 2023
Teaching Assistant, 22AINF06 Data Structures & Algorithms (Informatics II)

- Hosted weekly lab sessions with 65 students reviewing the theoretical concepts and implementation techniques

Department of Informatics, UZH   Sep. 2022 – Feb. 2023
Teaching Assistant, 22MI0005 Foundations of Data Science

- Coached 38 students in implementing machine learning models and solving written exercises

PUBLICATION

Tractable Conjunctive Queries over Static and Dynamic Relations
Ahmet Kara, **Zheng Luo**, Milos Nikolic, Dan Olteanu, Haozhe Zhang.
To appear in International Conference on Database Theory (ICDT), March 2025.
arXiv preprint URL: https://arxiv.org/abs/2404.16224

FELLOWSHIP

UCLA Computer Science Departmental Award - \$ 32,851   2024-2025

PROFESSIONAL EXPERIENCE

Zurich Insurance Group   Aug. 2022 – Jul. 2023
Quantitative Analyst

Chicago Mercantile Exchange Group   Jun. 2018 – Sep. 2020
Pricing and Valuation Analyst

SKILLS

- **Programming Languages:** C/C++, Python, Java, C#, SQL, SPARQL, LaTeX

- **Natural Languages:** English, Chinese, French (CEFR B2)