JINYANG LI

Computer Science and Engineering, University of Michigan, Michigan, USA
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EDUCATION

University of Michigan, Ann Arbor   Michigan, USA
Ph.D. candidate, Computer Science and Engineering   Sep. 2020 – Present
Advisor: H. V. Jagadish

Peking University   Beijing, China
Bachelor of Science, Computer Science and Technology   Sep. 2016 – Jun. 2020

RESEARCH INTEREST

Responsible data management: fairness, bias, and diversity issues in data management and processing

PUBLICATIONS

1. **Jinyang Li**, Yuval Moskovitch, Julia Stoyanovich, H. V. Jagadish
   Query Refinement for Diversity Constraint Satisfaction
   In submission
2. Yuval Moskovitch, **Jinyang Li**, H. V. Jagadish
   Detection of Groups with Biased Representation in Ranking
   In submission
3. Yuval Moskovitch, **Jinyang Li**, H. V. Jagadish
   Bias analysis and mitigation in data-driven tools using provenance
   Proceedings of the 14th International Workshop on the Theory and Practice of Provenance, 2022
4. **Jinyang Li**, Yuval Moskovitch, H. V. Jagadish
   DENOUNCER: detection of unfairness in classifiers
   VLDB Demo 2021
5. Yinda Zhang, **Jinyang Li**, Yutian Lei, Tong Yang, Zhetao Li, Gong Zhang, Bin Cui
   On-Off Sketch: A Fast and Accurate Sketch on Persistence
   VLDB 2021
6. Tong Yang, Haowei Zhang, **Jinyang Li**, Junzhi Gong, Steve Uhlig, Shigang Chen, Xiaoming Li,
   HeavyKeeper: An Accurate Algorithm for Finding Top-k Elephant Flows
   IEEE/ACM Transactions on Networking (ToN), 2019

RESEARCH EXPERIENCE

Research Assistant, Database Group, University of Michigan   Michigan, USA
Advisor: Professor H. V. Jagadish   Sep. 2020 – Present
- Refined relational queries to satisfy diversity constraints in the result set
- Detected groups with biased representation in a given ranking

Research Assistant, FORWARD Data Lab, UIUC   Illinois, USA
Advisor: Professor Kevin Chen-Chuan Chang   Jun. 2019 – Jul. 2020
- Theoretically proved the lower bound of change-aware order indexing
- Designed an index structure realizing the theoretical optimality to support ordered access of RDBMS

Research Assistant, Network Big Data Lab, Peking University   Beijing, China
Advisor: Professor Tong Yang   Jan. 2019 – Jun. 2019
- Worked on algorithms and data structures for fast and accurate data stream processing and networking measurement.