### **Guimu Guo**

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### Education

University of Alabama at Birmingham, AL Computer Science Ph.D. candidate Birmingham

Tongji University Shanghai, China Computer Science M.S., 2017

Shandong Jianzhu University Jinan, Shandong, Civil Engineering China

### **Awards**

- Alabama Graduate Research Scholar Program (GRSP) Award
- Second Prize in National Postgraduate Mathematic Contest in Modeling 2015
- First Class Scholarship, Shandong Jianzhu University 2010

## **Publications (Accepted and Published)**

- Wenwen Qu, Da Yan, Guimu Guo, Xiaoling Wang, Lei Zou, and Yang Zhou, "Parallel Mining of Frequent Subtree Patterns," International Workshop on Large Scale Graph Data Analytics (LSGDA), 2020.
- Da Yan, Guimu Guo, Md Mashiur Rahman Chowdhury, Tamer Özsu, Wei-Shinn Ku, and John C.S. Lui, "G-thinker: A Distributed Framework for Mining Subgraphs in a Big Graph," IEEE International Conference on Data Engineering (ICDE), 2020.
- Da Yan, Wenwen Qu, Guimu Guo, and Xiaoling Wang, "PrefixFPM: A Parallel Framework for General-Purpose Frequent Pattern Mining," *IEEE International Conference on Data Engineering (ICDE)*, 2020.
- **Guimu Guo**, Jalal Majed Khalil, Da Yan, and Virginia Sisiopiku, "Realistic Transport Simulation: Tackling the Small Data Challenge with Open Data," *IEEE International Conference on Big Data*, 2019.
- Ji Cheng, Guimu Guo, Da Yan, Xiaotian Hao, and Wilfred Ng, "EasyRain: A User-Friendly Platform for Comparing Precipitation Nowcasting Models," *IEEE International Conference on Big Data*, 2019.
- **Guimu Guo**, Jalal Majed Khalil, Da Yan, and Virginia Sisiopiku, "Realistic Transport Simulation with Open Data," *IEEE International Conference on Big Data*, 2019.

- Yi Yang, Da Yan, Shuigeng Zhou, and **Guimu Guo**, "Parallel Clique-like Subgraph Counting and Listing", *International Conference on Conceptual Modeling (ER)*, 2019.
- Guimu Guo, Hongzhi Chen, Da Yan, James Cheng, Jake Y. Chen, and Zechen Chong,
   "Scalable De Novo Genome Assembly Using a Pregel-Like Graph-Parallel System,"
   IEEE/ACM Transactions on Computational Biology and Bioinformatics (TCBB), 2019.
- Da Yan, Guimu Guo, Md Mashiur Rahman Chowdhury, M. Tamer Özsu, John C. S. Lui, Weida Tan, "T-thinker: A Task-Centric Distributed Framework for Compute-Intensive Divideand-Conquer Algorithms," Symposium on Principles and Practice of Parallel Programming (PPoPP), 2019.
- Ping Sun, Guimu Guo, and Rongjie Yu, "Traffic Crash Prediction Based on Incremental Learning Algorithm", IEEE International Conference on Big Data Analysis (ICBDA), 2017.

## **Publications (Submitted and On-going)**

- **Guimu Guo**, Da Yan, M. Tamer Özsu, Zhe Jiang, Jalal Khalil, "Scalable Mining of Maximal Quasi-Cliques: An Algorithm-System Codesign Approach", under revision in VLDB 2021.
- Da Yan, **Guimu Guo**, "Parallel Graph Processing", Encyclopedia of Big Data Technologies, invited book chapter.
- Da Yan, Guimu Guo "Think Like a Task Programming Model", Encyclopedia of Big Data Technologies, invited book chapter.

## **Journal Review**

IEEE/ACM TCBB

### **Conference External Review**

- ACM SIGMOD Conference 2021
- IEEE 37th International Conference on Data Engineering (ICDE 2021)
- Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD) 2020
- The Very Large Data Bases (VLDB) 2018 Conference
- IEEE International Conference on Information Reuse and Integration for Data Science (IRI) [2018, 2020]

# **Work Experience and Services**

- Web Chair of the annual BIOKDD workshop in conjunction with SIGKDD conference
- Software Developer Intern, IBM China System Center, Beijing May, 2015- Sep, 2015
- Teaching Assistant at UAB Course: Deep Learning, Cloud Computing
- Teaching Assistant at Tongji University Course: Database Principle and Application