Guimu Guo

Department of Computer Science
University of Alabama at Birmingham
Tel: +1 (205) 643-8599
Email: guimuguo@uab.com

Education

University of Alabama at Birmingham, Birmingham, USA — Sep.2017 – Present
PhD in Computer Science — GPA: 3.87/4

Tongji University, Shanghai, China — Sep.2014 - July2017
M.S. in Software Engineering — GPA:78/100
Thesis: Modeling in Specific Field and Application in Data Analysis System

Shandong Jianzhu University, Shandong, China — Sep.2009 - July2013
Major: B.E. in Civil Engineering; Minor: B.Management in Accounting
Final Year Project: Design of High School Teaching Building

Selected Research Projects

G-thinker: A Subgraph-Centric Distributed Framework for Mining Subgraphs, UAB
Sep, 2017 - Present
My Responsibility: graph mining application development, experiments, load balance analysis

Roadway Design Safety Evaluation Using 8DOF Driving Simulator, Tongji University
Mar, 2016 - May,2016 (co-advised by Prof. Andrew P. Tarko from Purdue University)
My Responsibility: data preparation for feature extraction, and model training and comparison

Shanghai Traffic Safety Management System Development, Tongji University.
Dec, 2015 - June, 2017
My Responsibility: built an incremental traffic crash classification model

Highly Consumable Business Analytics System, Tongji University.
May, 2015 - Sep, 2016
My Responsibility: website backend (Java), data mining engine at backend (R language)

Internship Experience

Software Developer Intern, IBM China System Center, Beijing — May, 2015- Sep, 2015
Responsibility: data mining system development.

Research Papers

Accepted:

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 divide-and-conquer algorithms.** PPoPP 2019: 411-412

Ping Sun, Guimu Guo, Rongjie Yu **. Traffic crash prediction based on incremental learning algorithm.** 2017 IEEE 2nd International Conference on Big Data Analysis (ICBDA): 182-185

Under Revision:
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.

Under Submission:
Da Yan, Guimu Guo, Md Mashiur Rahman Chowdhury, M. Tamer Özsu, John C.S. Lui, Weida Tan. **G-thinker: Highly Parallel Subgraph Mining in a Big Graph.** 28th International Symposiom on High-Performance Parallel and Distributed Computing (HPDC 2019)

Yi Yang, Da Yan, Shuigeng Zhou, Guimu Guo. **Parallel Clique-like Subgraph Counting and Listing.** 33rd ACM International Conference on Supercomputing (ICS '19)

External Review

The Very Large Data Bases (VLDB) 2018 Conference
International Conference on Parallel Processing (ICPP) 2018
IEEE BigData Congress 2018
IEEE International Conference on Information Reuse and Integration for Data Science (IRI) 2018

Journal Review

IEEE/ACM Transactions on Computational Biology and Bioinformatics (TCBB)

Teaching Experience

Teaching Assistant, UAB Jan. 2019 - Mar. 2019
Course: Foundations of Data Science
Responsibility: Taught 6 classes.

Teaching Assistant, Tongji University Mar. 2015-July. 2015
Course: Database Principle and Application
Responsibility: Designed and marked course projects, delivered lectures and Q&A.

Honors & Awards

First Class Scholarship, Shandong Jianzhu University 2010
Second Prize in National Postgraduate Mathematic Contest in Modeling 2015