RUI YANG (Rita)

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EDUCATION

University of Illinois, Urbana-Champaign Aug. 2016 – Expected 2021

- Ph.D. in Computer Science;
- Research Interest: Distributed System, Graph Processing
- Advisor: Prof. Indranil Gupta

Shanghai Jiao Tong University Sept. 2012 –Jun. 2016

- B.S. major in Computer Science. *Overall GPA: 91.3/100.0*
- Member of Shanghai Key Laboratory of Scalable Computing and Systems.

PUBLICATIONS

[1] Xiaofeng Gao, **Rui Yang**, Fan Wu, and Guihai Chen, Optimization of Full-View Barrier Coverage with Rotatable Camera Sensors, *IEEE International Conference on Distributed Computing Systems (ICDCS 2017),* Atlanta, GA, USA, June 5 – 8, 2017. (Accepted)

[2] **Rui Yang**, Xiaofeng Gao, Fan Wu, and Guihai Chen, Distributed Algorithm for Full-View Barrier Camera Coverage with Rotatable Camera Sensors, *IEEE Global Communications Conference (GLOBECOM 2015),* San Diego, CA, USA, December 6-10, 2015.

RESEARCH & TEACHING EXPERIENCES

Distributed Protocols Research Group (DPRG) Aug. 2016 – Present

Research Assistant, Under Prof. Indranil Gupta *Illinois*

- Working on the topic of multi-tendency priority problem in graph processing clusters, focusing on scale-in, scale-out and job eviction scheduler.

Teaching Assistant Mar. 2015 – July 2015 & Mar. 2016 – July 2016

Course: Data Structure, Lecturer: Prof. Huiyu Weng & Tongzhen Zhang

- Responsible for practice class, assignment and project evaluation and setting quiz questions.

Shanghai Key Laboratory of Scalable Computing and Systems Oct. 2013 – July 2016

Research Assistant, Under Prof. Xiaofeng Gao *Shanghai*

- **Published** a paper in 2015 Global Communications Conference (GLOBECOM) as the first author.
- Worked on optimization problem on full-view coverage problem in camera sensor networks. Designed a distributed algorithm with similar but better performance compared with centralized solutions with $O(N^2)$ time complexity.
- Supported by student research fund of Chun-Tsung Program (CTP).

PROJECT EXPERIENCE

Dynamic Partition Graph Processing System *(Current, C++)* Feb. 2017 – Present

Team Member (Group of three), Under Prof. Indranil Gupta *UIUC*

- Designing and implementing dynamic partition during the running jobs based on dynamic graph and network conditioning. The base system is PowerGraph.

Maple-Juice System *(Java)* Sep. 2016 – Dec.2016

Team Member (Group of two), Under Prof. Indranil Gupta *UIUC*

- Built a simple version of Map-Reduce System and Hadoop Distributed File System (HDFS) in Java and Netty framework.

- Implemented Map phase and Reduce phase under separate commands. Implemented putting, getting and listing file function with inner structure of file replication, distributed membership maintenance and suspicion mechanism in distributed file system. System is fault-tolerant with two simultaneous server failure.
- System performs better than Hadoop when the key set is ten square magnitude. For word count application, Maple-Juice use about 1/3 time of Hadoop Map Reduce for 500 words in over 150 MB files.

UNDERGRADUATE PROJECT EXPERIENCE *(SELECTED)*

Online Food Sharing and Evaluation System May 2015 – June 2015

Team Member, Under Prof. Fang Li, Database Design *Shanghai*

- Built an online evaluation platform using PHP, JavaScript, CSS and MySQL.
- Responsible for the recipe extraction and formalization, framework construction, database maintenance and website design based on bootstrap.

Illumination Direction Detection Group *(Matlab, Android)* Sep. 2014 – Jan. 2015

Team Leader, Under Prof. Bin Sheng, Software Engineering Practice *Shanghai*

- Designed an Android software to judge the illumination direction of a picture.
- Responsible for the algorithm design for face extraction, facial feature deletion, edge smoothing and the establish of database; The software is applying for the **patent**.

Smartphone Controlled Vehicle Group *(Android)* Sep. 2014 – Jan. 2015

Team Leader, Design Project of Science and Technology Innovation *Shanghai*

- Used Smartphone to control the vehicle mounting another smart phone with multiple control modes.
- Responsible for the construction of voice control, gravity control function, video processing with image recognition and UI design; the app had four control mode including video control though slave phone.

HONORS, AWARDS & SCHOLARSHIP

Scholarship & Research fund

- Microsoft Women's Research Fellowship Sep. 2016 – May 2017
- National Scholarship (1%) twice Oct. 2015 & 2013
- Google Anita Borg Scholarship (1%) Aug. 2015
- First-Class Scholarship for Excellent Student of SJTU (0.8%) Oct. 2015
- Chun-Tsung Research Program Student Research Fund (0.4%) May 2014

Academic Competition & Award

- Shanghai Jiao Tong University Outstanding Bachelor Thesis (1%) Jun. 2016
- Interdisciplinary Contest in Modeling, Meritorious Winner Feb. 2015
- National Mathematical Contest in Modeling, 2nd Prize at **National Level (6%)** Sep. 2014

Other Honors:

- Shanghai Outstanding Graduate Jun. 2016

SKILLS & PERSONALS

Programming Language: C++, Python, Java and PHP.

Other Skill: LaTex; Proficient in Photoshop with well-experienced in poster design and video production;