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Keren Zhou

Research Interests

- Multi-core Algorithms.
- Distributed Systems

Education

- 2014-2017 **M.S. in Institute of Computing Technology, Chinese Academy of Sciences**
(expected) *Adviser:* Guangming Tan (<http://www.ncic.ac.cn/~tgm>)
GPA: 90/100
- 2010-2014 **B.E. in School of Software, Yunnan University**
Adviser: Wei Zhou
Thesis: A Practical Concurrent Quadtree
GPA: 92/100

Research Experience

- 2015.6-present Research Assistant, Institute of Computing Technology, Chinese Academy of Sciences
- Deep Learning for Biological Images**
- Develop a deep learning framework for biological applications (e.g., membranes detection, cell movement trace).
 - Improve the performance of parallel neural networks on modern architectures by vectorization and blocking techniques.
- 2013.1-2014.7 Research Assistant, Intelligent Web Laboratory, Yunnan University
- Concurrent Data Structures**
- Revisit basic concurrent data structures, prove their correctness, and evaluate their performance.
 - Design concurrent tree data structures like AVL-Tree, RB-Tree, KD-Tree, and Quadtree.

Industry Experience

- 2013.10-2014.2 Research and Develop Intern, Baidu
- Optimize Hadoop work-flow which extracts thousands of features from the raw text files, and load them into data warehouses.
 - Reference: Jing Li, lijing16@baidu.com

Publications

- [1] ZHOU, Wei ; **Keren, Zhou** ; RUAN, Zhongzhi ; YAO, Shaowen ; QIAN, Depei: A Survey on Modern Multi-core Based Concurrent Data Structure. In: *Journal of Software* (2016)
- [2] ZILONG, Tan ; **Keren, Zhou** ; HAO, Zhang ; WEI, Zhou: BF-MapReduce: A bloom filter Based Efficient Lightweight Search. In: *International Conference on Collaboration and Internet Computing (CIC)* on IEEE, 2015
- [3] QIANG, Li ; MAOJIE, Gu ; **Keren, Zhou** ; XIAOMING, Sun: Mining User Features for Purchase Prediction in M-Commerce. In: *Data Mining Workshop (ICDMW), 2015 IEEE International Conference on* IEEE, 2015
- [4] ZHOU, Wei ; LU, Jin ; **Keren, Zhou** ; WANG, Shipu ; YAO, Shaowen: Concurrent Skiplist Based Double-Layer Index Framework for Cloud Data Processing. In: *Journal of Computer Research and Development* 52 (2015), Nr. 7, S. 1531–1545
- [5] **Keren, Zhou** ; YU, Qian ; ZHU, Zhenwei ; LIU, Wenjia: Dynamic Vegas: A Competitive Congestion Control Strategy. In: *Proceedings of International Conference on Computer Science and Information Technology* Springer, 2014, S. 333–340

Awards and Honors

- 2016 Merit Students of Chinese Academy of Sciences
- 2016 Schlumberger Scholarship
- 2015 Top 10, Alibaba 1st Middleware Engineering Contest
- 2014 Bronze Medal, The 2014 ACM-ICPC Asia Anshan Regional Contest
- 2014 Best B.E. Degree Thesis of Yunnan University
- 2013 Best Creative Award, Baidu Future Search Engine Contest
- 2013 Meritorious Winner, Mathematical Contest in Modeling
- 2011 Second Prize, China Undergraduate Mathematical Contest in Modeling
- 2011,2012 National Scholarship
- 2011,2012 Merit Students of Yunnan Province

Skills

Languages: C, C++, Java, Python, Bash, Javascript
Parallelism: Pthread, Openmp, MPI, CUDA, SIMD

Language

English GRE 325, TOEFL 107