Lijie Ren (任李杰)

Contact Information	Minato-ku Shiba 1-2-1-2909 Tokyo, Japan 105-0014	lijie.cs@gmail.com (+81)-90-9000-2765

Core Competencies

Web service architecture design and implementation.
Scalability & latency improvement.
Algorithm design and optimization.
Solving open-ended problems.
Communication with collaborators and clients.

Work Experiences

Google Japan
Software Engineer **Mar. 2015 - present**
Worked as a full stack engineer on Google's Web Light service.

Google
Software Engineer **Aug. 2013 - Mar. 2015**
Worked on internal authrization tools and libraries.

Foursquare Labs, Inc.
Data Infrastructure Engineer **Jun. 2012 - Aug. 2013**
Worked on data servers powering Foursquare's Venue Service.

Google Japan
Software Engineer Intern **Jul. 2011 - Sep. 2011**
Worked on a research project analyzing mobile users' commuting patterns in metropolitan areas.

University of California, Santa Barbara
Teaching Assistant **Sep. 2009 - Feb. 2012**

Education & Research

University of California, Santa Barbara, CA, USA
M.S., Computer Science, Jun. 2012

Parallel Computing: Shortest Paths in Time-Dependent Graphs
Implementated parallel shortest-path algorithms on static and time-dependent graphs with comparable performance to Google's Pregel System.

Combinatorial Algorithms: Visibility-based Pursuit-Evasion Problem
Proved a lower bound of the number of robots needed to capture an evader with the same speed in any polygonal environment, possibly with holes.

Graph Mining:
Anomaly Detection in Graphs
Improved the performance of the algorithm used in gIceberg by 2X.
Frequent Sub-Graphs with Wild Cards
Improved graph mining library gSpan to mine frequent graph patterns that contains wildcard labels or subgraphs.

Shanghai Jiao Tong University, Shanghai, China
B.E., Electrical Engineering, Honor Class, Jun. 2009

Quantum Information Processing
Presented a mathematical framework for quantum teleportation on arbituary quantum graph

states. Also proved the theoretical upper bound of the fidelity of any teleporation done on a graph state.

PUBLICATIONS

Graph Mining
gIceberg: Towards Iceberg Analysis in Large Graphs
Nan Li, Ziyu Guan, **Lijie Ren**, Jian Wu, Jiawei Han, Xifeng Yan. Proc. of the 2013 IEEE International Conference on Data Engineering (ICDE'13).

Quantum Computation
Universal Teleportation via Continuous-Variable Graph States
Lijie Ren, Guangqiang He, Guihua Zeng. "", Physical Review A. (2008) 78, 042302.

MORE ABOUT ME

Speak English, Mandarin Chinese, and limited Japanese.
Play piano since age 10.
Got 7th place in National Physics Olympiad 2005 in Hebei, China (population $>$ 70 million).