Junjie Guan (Jack)

✍ 4545 8th Ave NE, Seattle, WA
☎ +1 (603) 277 1196
✉ gjj2684@gmail.com

Interested field & Skills

- Distributed System, Service Oriented Architecture
- Java, Python, C++

Education

2013 – 2015 **Dartmouth College**
Computer Science, M.S.

2009 – 2013 **Beijing University of Posts and Telecommunication**
Communication Engineering, B.S.

Professional Experience

Apr 2015 – Present

SDE @ Amazon AWS

AWS Lambda

1) Lambda function versioning. A demanding feature that affect almost almost all the APIs and underneath function management architecture.
2) Implement a test account pool service. This avoids tests resource conflicts and unexpected account state change. Less mysterious test failures. Also it makes test parallelization possible and cuts hours of tests in half.
3) Implement a map reduce log analysis tool, which reduces analysing terabytes of data from serveral days, to a few hours.
4) Build fine grain metrics, monitors upon the service, along with a dashboard. Reduce uncaught events and more easy to pinpoint problem.

Jun 2014 – Aug 2014

SDE Intern @ Amazon AWS

Builder Tools, Package Builder Services

1) Implement the Auto-Unprune feature to relief customer from tedious work with broken packages.
2) Implement pacakge build history API as strech project.

Sep 2012 – Feb 2013

Research Assistant @ NetLab, Tsinghua University

DCloud: Deadline Guaranteed Cloud Computing

1) Design a new datacenter resource allocation mechanism, by considering deadline into job scheduling;
2) Build thousands of lines of C++ simulations program;
3) Implementation on a 16-machine cluster, writing controling program with Python and Bash shell;
4) Validating efficiency with Hadoop application using; Java,
5) Try compare with optimal solution using IBM Cplex;

Increase job throughput by 30∼50% comparing to state-of-art, submitted to ACM SIGCOMM 2013.

Publication: Li, D., Chen, C., **Guan, J.**, Zhang, Y., Zhu, J., & Yu, R. DCloud: Deadline-aware Resource Allocation for Cloud Computing Jobs. Accepted, IEEE Transactions on Parallel and Distributed Systems

Publication: Dan Li, Jing Zhu, Jianping Wu, **Junjie, Guan**, Guaranteeing Heterogeneous Bandwidth Demand in Multi-tenant Data Center Networks. Accepted by IEEE/ACM Transactions on Networking 2014

Aug 2011 – Jul 2012

Software Developer @ Innovation Project Center of BUPT

SIDES: Scalable Intelligent Distributed Emergency System

1) Propose the idea of a decentralized self-organize wireless-based emergency system that generates real-time evaucation strategy to save lives in fire harzard,
2) Design the the distributed protocol.
3) Conduct simulation on C++ program, and implement in Zigbee wireless nodes using C.
Shorten evacuation by 50% comparing to normal strategy, Won first prize as National Class Innovation Project.

Publication: **Junjie, Guan**, Yanyi Wu, Jinming Ma, Tao Li, Chunlei Xie, Yuli Mo SIDES: Scalable Intelligent Distributed Emergency System, accepted by IC-NIDC2012