Junjie Guan

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

Interested field & Skills

- Distributed System, Service Oriented Architecture
- Java, Ruby on Rails, 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

Mar 2016 – Present

SDE @ Airbnb
Service Infrastructure

Working on mcrouter integration with memcache.

Apr 2015 – Feb 2016

SDE @ Amazon AWS
AWS Lambda

1) Worked on function versioning, a demanding feature to manage version and alias of Lambda function. 2) Implemented a test account pool service to avoid tests resource conflicts, which makes test parallelization possible. 3) Implemented a map-reduce-base analyser, which reduces analyzing terabytes of data from several days to a few hours. 4) Built more fine grain metrics for the service.

Jun 2014 – Aug 2014

SDE Intern @ Amazon AWS
Builder Tools, Package Builder Services

1) Implemented a feature to automize the process of pruning and unpruning broken package. 2) Implemented package build history API.

Sep 2012 – Feb 2013

Research Assistant @ NetLab, Tsinghua University
DCloud: Deadline Guaranteed Cloud Computing

1) Designed a new datacenter resource allocation mechanism, by introducing job deadline when scheduling. 2) Wrote a resource allocation simulation program, and built a linear model to compute optimal results using IBM Cplex. 3) Validated the efficiency in a 16-machine cluster running Hadoop.

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 2015

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) Implemented a decentralized self-organize wireless-based emergency system that generates real-time evacuation strategy to save lives in fire hazard. 2) Designed the learning protocol for distributed sensor nodes, And implemented in Zigbee.

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 IEEE Network Infrastructure and Digital Content 2012