

# Junjie Guan (Jack)

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## INTERESTED FIELD & SKILLS

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

## PROFESSIONAL EXPERIENCE

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.

APR 2015 – PRESENT

SDE Intern @ Amazon AWS  
*Builder Tools, Package Builder Services*

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

JUN 2014 – AUG 2014

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.

SEP 2012 – FEB 2013

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