Zhuozhao Li

CONTACT

532 Rice Hall
85 Engineer's Way
Charlottesville, VA, USA, 22904

Phone: +1(323) 868-7806
Email: zl5uq@virginia.edu
Homepage: http://www.cs.virginia.edu/~zl5uq/

RESEARCH INTEREST

My research interests include Cloud/Edge Computing, Distributed Systems, and Internet of Things. My current research focuses on resource management in clouds and big data frameworks.

EDUCATION

University of Virginia, Charlottesville, VA, USA *May, 2018*

Ph.D. Candidate, Computer Science

- Advisor: Dr. Haiying Shen
- Dissertation: Scheduling Techniques in Different Architectures of Data-parallel Clusters for High Performance
- Committee: Andrew Grimshaw, Mary Lou Soffa, David Evans, Zongli Lin

University of Southern California, Los Angeles, CA, USA *May, 2012*

M.S., Electrical Engineering

Zhejiang University, Hangzhou, Zhejiang, China *Jul, 2010*

B.E., Information Engineering

ACADEMIC EXPERIENCE

University of Virginia / Clemson University

Graduate Research Assistant *May, 2012 - Present*

Including current Ph.D. research projects and graduate level coursework. Focusing on the research about cloud computing, distributed computing, and big data systems.

Graduate Teaching Assistant
CS6501-010 Cloud Computing (Graduate) 2018 Spring
CS4740 Cloud Computing (Undergraduate) 2017 Fall
CS6501-010 Cloud Computing (Graduate) 2017 Spring

University of Southern California, Los Angeles, CA, USA

Grader *Aug, 2011 - May, 2012*

Duties included grading homework, exams and final for the courses of EE441 Linear Algebra and EE531 Nonlinear Optics.

PUBLICATION

Journal

[4] **Z. Li**, H. Chandler and H. Shen, Analysis of Knowledge Sharing Activities on a Social Network Incorporated Discussion Forum: a Case Study of DISboards, IEEE Transactions on Big Data (**TBD**), Accepted on August, 2017

[3] **Z. Li** and H. Shen, Measuring Scale-up and Scale-out Hadoop with Remote and Local File Systems and Selecting the Best Platform, IEEE Transactions on Parallel and Distributed Systems (**TPDS**), Vol. 28, No. 11, pp: 3201 - 3214, 2017

[2] **Z. Li**, H. Shen, W. Ligon and J. Denton, An Exploration of Designing a Hybrid Scale-Up/Out Hadoop Architecture Based on Performance Measurements, IEEE Transactions on Parallel and Distributed Systems (**TPDS**), vol. 28 no. 2, pp. 386-400, 2017

[1] H. Shen and **Z. Li**, New Bandwidth Sharing and Pricing Policies to Achieve a Win-Win

Situation for Cloud Provider and Tenants, IEEE Transactions on Parallel and Distributed Systems (**TPDS**), vol. 27, no. 9, pp. 2682-2697, 2016

International Conference

[13] H. Wang, H. Shen and **Z. Li**, Approaches for Resilience Against Cascading Failures in Cloud Datacenters, In Proceedings of 38th IEEE International Conference on Distributed Computing Systems (**ICDCS**), July 2-5, 2018, Vienna, Austria

[12] **Z. Li**, H. Shen and C. Miles, PageRankVM: A PageRank Based Algorithm with Anti-Collocation Constraints for Virtual Machine Placement in Cloud Datacenters, In Proceedings of 38th IEEE International Conference on Distributed Computing Systems (**ICDCS**), July 2-5, 2018, Vienna, Austria

[11] **Z. Li**, H. Shen, and A. Sarker, A Network-aware Scheduler in Data-parallel Clusters for High Performance, In Proc. of 18th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing (**CCGrid**), May 1-4, 2018, Washington, DC, USA [acceptance rate: 20.8%]

[10] L. Yan, H. Shen, **Z. Li**, A. Sarker, J. A. Stankovic, C. Qiu, J. Zhao and C. Xu, Employing Opportunistic Charging for Electric Taxicabs to Reduce Idle Time, In Proc. of ACM International Joint Conference on Pervasive and Ubiquitous Computing (**UbiComp**), Oct 8-12, 2018, Singapore, Singapore

[9] A. Sarker, **Z. Li**, W. Kolodzey and H. Shen, Opportunistic Energy Sharing Between Power Grid And Electric Vehicles: A Game Theory-based Nonlinear Pricing Policy, In Proc. of the 37th International Conference on Distributed Computing Systems (**ICDCS**), June 5-8, 2017, Atlanta, GA, USA

[8] **Z. Li**, H. Shen, J. Denton and W. Ligon, Comparing Application Performance on HPC-based Hadoop Platforms with Local Storage and Dedicated Storage, In Proc. of the 2016 IEEE International Conference on Big Data (**BigData**), December 5-8, 2016, Washington D.C., USA [acceptance rate: 18.68%]

[7] H. Shen, L. Yu, L. Chen and **Z. Li**, Goodbye to Fixed Bandwidth Reservation: Job Scheduling with Elastic Bandwidth Reservation in Clouds, In Proc. of the 8th IEEE International Conference on Cloud Computing Technology and Science (**CloudCom**), December 12-15, 2016, Luxembourg [acceptance rate: 50/193]

[6] A. Ghavami, **Z. Li** and H. Shen, Game Theory-Based Nonlinear Bandwidth Pricing for Congestion Control in Cloud Networks, In Proc. of the 8th IEEE International Conference on Cloud Computing Technology and Science (**CloudCom**), December 12-15, 2016, Luxembourg [acceptance rate: 50/193]

[5] **Z. Li**, H. Shen and K. Chen, Learning Network Graph of SIR Epidemic Cascades Using Minimal Hitting Set based Approach, In Proc. of the 25th International Conference on Computer Communications and Networks (**ICCCN**), 2016

[4] A. Ghavami, **Z. Li**, and H. Shen, On-Demand Bandwidth Pricing for Congestion Control in Core Switches in Cloud Networks, In Proc. of the 9th IEEE International Conference on Cloud Computing (**CLOUD**) short paper, 2016

[3] **Z. Li**, H. Shen, W. Ligon and J. Denton, Performance Measurement on Scale-up and Scale-out Hadoop with Remote and Local File Systems, In Proc. of the 9th IEEE Interna-

tional Conference on Cloud Computing (**CLOUD**), 2016 [acceptance rate: 16.7%]

[2] **Z. Li** and H. Shen, Designing A Hybrid Scale-Up/Out Hadoop Architecture Based on Performance Measurements for High Application Performance, In Proc. of IEEE International Conference on Parallel Processing (**ICPP**), 2015 [acceptance rate: 32.5%]

[1] H. Shen and **Z. Li**, New Bandwidth Sharing and Pricing Policies to Achieve A Win-Win Situation for Cloud Provider and Tenants, In Proc. of IEEE Conference on Computer Communications (**INFOCOM**), 2014 [acceptance rate: 19.4%]

Poster

[1] **Z. Li** and H. Shen, Job Scheduling for Data-Parallel Frameworks with Hybrid Electrical/Optical Datacenter Networks, In ACM Symposium on Cloud Computing (**SoCC**) Poster, 2017

Honors and Awards

- Outstanding Graduate Research Assistant, awarded by University of Virginia, 2018
- IEEE/ACM CCGrid Student Travel Award, awarded by NSF, 2018
- ACM SoCC Student Scholarship, 2017
- Outstanding Graduate Research Assistant (Honorable Mentioned), awarded by University of Virginia, 2017
- IEEE BigData Student Travel Award, awarded by NSF, 2016
- IEEE ICPP Student Travel Award, awarded by NSF, 2015
- Scholarship, awarded by Zhejiang University, 2007
- First Class, National High School Mathematics League, awarded by Chinese Mathematical Society, 2005

Professional Services

Conference Organizations:

- Web Chair of the IEEE International Conference on Network, Storage and Architecture (NAS), 2017
- Web Chair of the IEEE International Conference on Computer Communications and Networks (ICCCN), 2017

Reviewer (Conferences):

- IEEE Global Communications Conference (GLOBECOM), 2018

Reviewer (Journals):

- IEEE Transactions on Parallel and Distributed Systems (TPDS), 2018

External Reviewer (Conferences):

- IEEE International Conference on Computer Communications and Networks (ICCCN), 2014, 2015, 2017
- IEEE International Conference on Mobile Ad-hoc and Sensor Systems (MASS), 2014, 2015
- IEEE International Conference on Network Protocols (ICNP), 2014 - 2017
- IEEE International Conference on Computer Communications (INFOCOM), 2013 - 2018

External Reviewer (Journals):

- IEEE Transactions on Big Data (TBD), 2017
- IEEE Transactions on Networking (ToN), 2016
- ACM Transaction on Cyber-Physical Systems (TCPS), 2016