Yuhua Lin

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EDUCATION

Doctorate of Philosophy in Computer Engineering

August 2016

Clemson University,

Clemson, SC

GPA: 3.75/4.00

Master of Engineering in Computer Science and Technology,

June 2012

Sun Yat-Sen University,

GuangZhou, China

Cumulative Overall GPA: 3.8/4.0; Major 3.9/4.0

June 2009

Bachelor of Engineering in Software Engineering, Sun Yat-Sen University.

GuangZhou, China

Cumulative Overall GPA: 3.81/4.00; Major 3.90/4.00; Ranked 4 out of 68

RESEARCH

Research Assistant, Clemson University

June 2011 to 2016

- EXPERIENCE Effective and economical content delivery and storage strategies for cloud systems
 - Effective file storage system
 - Enhancing performance of distributed systems

Research Assistant, Sun Yat-Sen University

January 2009 - May 2011

- Analyzed scheduling and optimization problems in emergency relief
- Researched on the application of heuristic algorithms, e.g., using genetic algorithm in emergency resources scheduling

SELECT PROJECT EXPERIENCE

Effective content delivery strategy for cloud systems March 2015 to March 2016

- Proposed and implemented an economical and deadline-driven video flow scheduling system to reduce the bandwidth costs of inter-datacenter transfers
- \bullet Implemented the scheduling system in Planet Lab using Java, a distributed testbed with nodes deployed globally
- Simulated the scheduling system in Amazon EC2 platform

Adaptive file replication system in data-intensive clusters July 2014 to March 2015

- Proposed using time-varying file popularities to achieve a good tradeoff between data availability and efficiency
- Implemented in Clemson University's Palmetto Supercomputer Cluster, with 300 servers in 10 racks
- Simulate the file access pattern using the CTH trace data

Reputation based Question and Answering system June 2013 to September 2014

- Proposed using a category and theme based reputation system to evaluate users' expertise in various kinds of questions
- Crawled 10GB+ data from Yahoo! Answers, analyzed user data using Hadoop MapReduce
- Develop an online Question and Answering system using Java Applet framework and MySQL database, tested the system with 42 students

Social image sharing application on windows phone August 2011 to December 2011

- Lead a team of 3 students, develop an image sharing App using Project Hawaii Software Development Kit
- Explored cloud-enabled mobile computing, used Windows Azure for computation and storage

SKILLS

Work EXPERIENCE

Shenzhen IMSL Key Lab, Shenzhen, China

June 2010 - August 2010

- Participated in developing Ad'Com system
- worked on data mining and clustering, practice in C and C++

Software Factory of Sun Yat-sen University, Guangzhou, China June 2008 - June 2009

- Researched on mass data storing and information extracting
- Lead a team of 4 in developing a health care management system, which is serving hundreds of people in GuangZhou 12nd hospital

- Conference Y. Lin and H. Shen, VShare: A Wireless Social Network Aided Vehicle Sharing Sys-PUBLICATION tem Using Hierarchical Cloud Architecture, Proc. of the IEEE International Conference on Internet-of-Things Design and Implementation (IoTDI), April 4-8, 2016, Berlin, Germany
 - Y. Lin, H. Shen and L. Chen, EcoFlow: An Economical and Deadline-Driven Inter-Datacenter Video Flow Scheduling System, short paper, Proc. of the 22nd ACM International Conference on Multimedia, Oct. 26th - 30th, 2015, Brisbane, Queensland, Australia
 - Y. Lin and H. Shen, AutoTune: Game-based Adaptive Bitrate Streaming in P2P-Assisted Cloud-Based VoD Systems, Proc. of the IEEE International Conference on Peer-to-Peer Computing (P2P), September 21-35, 2015, Cambridge, MA
 - Y. Lin and H. Shen, Leveraging Fog to Extend Cloud Gaming for Thin-Client MMOG with High Quality of Experience, Proc. of the 44th International Conference on Parallel Processing (ICPP), September 1-September 4, 2015, Beijing, China
 - Y. Lin and H. Shen, An Energy-Efficient Adaptive File Replication System In Data-Intensive Clusters, Proc. of the 24th International Conference on Computer Communications and Networks (ICCCN), August 3-August 6, 2015, Las Vegas, Nevada [Best Paper Runner-up Award
 - Y. Lin and H. Shen, SmartQ: A Question and Answer System for Supplying High-Quality and Trustworthy Answers, Proc. of the International Conference on Parallel and Distributed Systems (ICPADS), Dec. 16-19, 2014, Hsinchu, Taiwan
 - H. Shen, Y. Lin and H. Chandler, Interest-based Per-Community P2P Hierarchical Structure for Short Video Sharing on YouTube, Proc. of the 34th International Conference on Distributed Computing Systems (ICDCS), June 30-July 3, 2014, Madrid, Spain

JOURNAL Publication

- Y. Lin and H. Shen, AutoTune: Game-based Adaptive Bitrate Streaming in Cloud-Based Hybrid VoD Systems, IEEE Transactions on Services Computing (TSC), Accepted on Aug 30, 2016
- Y. Lin and H. Shen, CloudFog: Leveraging Fog to Extend Cloud Gaming for Thin-Client MMOG with High Quality of Experience, IEEE Transactions on Parallel and Distributed Systems (TPDS), Accepted on May 3, 2016
- H. Shen, Y. Lin, K. Sapra and Z. Li, Enhancing Collusion Resilience in Reputation Systems, IEEE Transactions on Parallel and Distributed Systems (TPDS), Issue: 99, pp. 1, 2015
- T. Li, Y. Lin and H. Shen, A Locality-Aware Similar Information Searching Scheme, Internatinal Journal on Digital Libraries, 2014, Issue: 99, pp. 1-15, 2014
- H. Shen, Y. Lin and J. Li, Social Network-aided Efficient Peer-to-Peer Live Streaming System, IEEE/ACM Transactions on Networking (TON), Vol. 23, no. 3, pp. 987-1000,
- H. Shen, Y. Lin and T. Li, Combining Efficiency, Fidelity and Flexibility in Resource Information Services, IEEE Transactions on Computers (TC), Vol. 62, no. 2, pp. 353-367, 2015

- H. Shen, Z. Li, **Y. Lin** and J. Li, SocialTube: P2P-assisted Video Sharing in Online Social Networks, *IEEE Transactions on Parallel and Distributed Systems (TPDS)*, Vol. 25, no. 9, pp. 2428-2440, 2014
- H. Shen, Y. Lin, Z. Li, Refining Reputation to Truly Select High-QoS Servers in Peer-to-Peer Networks, *IEEE Transactions on Parallel and Distributed Systems (TPDS)*, Vol. 24, no. 12, pp. 2439-2450, 2014

Poster

- H. Wang, H. Shen and **Y. Lin**, Proactive Incast Congestion Control In A Datacenter Serving Web Application, *ACM Symposium on Cloud Computing (SOCC)*, *Poster Session*, October 5-7, 2016, Santa Clara, CA
- Y. Lin, H. Shen and L. Chen, An Economical and Deadline-Driven Inter-Datacenter Video Flow Scheduling System, *Proc. of The 35th International Conference on Distributed Computing Systems (ICDCS) Poster Session*, June 29th July 2nd, 2015, Columbus, Ohio
- Y. Lin and H. Shen, Leveraging Fog to Extend Cloud Gaming for Thin-Client MMOG with High Quality of Experience, *Proc. of The 35th International Conference on Distributed Computing Systems (ICDCS) Poster Session*, June 29th July 2nd, 2015, Columbus, Ohio

AWARDS

IEEE International Conference on Computer Communications and Networks Best Paper Runner-up Award August 2015

NSF Student Travel Grant, IEEE International Conference on Distributed Computing Systems ${\it June~2015}$

Excellent Graduates of Sun Yat-sen University

June 2009

Excellent Dissertation for Bachelor Degree of Sun Yat-sen University

June 2009

Level 1 Scholarship (5%), Sun Yat-sen University 2007-2008

Level 2 Scholarship (15%), Sun Yat-sen University 2006-2007, 2005-2006

Professional Activities

Reviewer for Journals

IEEE Transactions on Parallel and Distributed Systems (TPDS)

Journal of Parallel and Distributed Computing

Scalable Computing

Computer Networks

ACM Computing Surveys

External Reviewer (Journals)

IEEE/ACM Transactions on Networking (TON)

IEEE Transactions on Computers (TC)

IEEE Transactions on Cloud Computing (TCC)

External Reviewer (Conferences)

2012-2016 IEEE International Conference on Computer Communications (INFOCOM)
2015 IEEE International Conference on Computer Communications and Networks
(ICCCN)

2015 IEEE International Conference on Parallel Processing (ICPP)

2014 IEEE International Conference on Network Protocols (ICNP)

2012-2014 IEEE International Conference on Distributed Computing Systems (ICDCS)

2012-2014 IEEE International parallel & Distributed Processing Symposium (IPDPS)

2012-2013 IEEE International Conference on Mobile Ad-hoc and Sensor Systems (MASS)

2013 ACM International World Wide Web Conference (WWW)