

Curriculum Vitae

JIANWEI LIU

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Education

- 2011 – 2017.5 PhD student, Clemson University, Computer Science (advisor: Dr. Jim Martin)
- 2010 M.Sc. Xidian University, Xi'an, Shaanxi, China, Telecommunication and Information Systems
- 2007 B.E. Xidian University, Xi'an, Shaanxi, Software Engineering

Intern Experience

- 2014 Intern Research Scientist, Bell Labs, Murray Hill, NJ : Design and implement transportation protocol in extreme lossy channel
- 2008 Intern Software Engineer, Qinzhong Electronics, China : Design and implement software for embedded banking terminal

Academic honors

- 2007 Outstanding Student of Xidian University
- 2006 Golden Prize in the Xi'an Collegiate Software Design Contest
- 2006 Special-grade Scholarship of Xidian University
- 2006 – 2007 First-grade Scholarship of the School of Software, Xidian University
- 2005 Special-grade Prize in Spark Cup Extracurricular Academic Technical Work Contest

Research interests

Cloud Computing, Software Defined Network, Handover and Resource Allocation of Heterogeneous Wireless Network, Middleware for IoT platforms and Edge Computing

Teaching experience

- 2015 Technical Leader for the IBM Extreme Orange (reported by IEEE), Clemson University
- 2014 Teaching Assistant of three courses, Clemson University

Skills

C, C++, Java, Matlab, R, Python, Javascript, Android Development, OpenGL/CL, SDN, Algorithm Design & Analysis, Embedded Linux Software, Distributed Simulation and Optimization on HPC.

Project experience

- 2014 - Now Research Assistant in the Networking Lab at Clemson University
Conducted research on wireless network optimization and edge computing. Participated in projects of SciWiNet, TGIF, etc. which build wireless testbeds and software for various usage, such as connected vehicle and general IoT. Worked on SDN solution for seamless handover in the GENI Wireless project.
- 2011 - 2014 Research Assistant in the LAUGHING Lab at Clemson University
Worked with Dr. Jerry Tessendorf on computer graphics related research projects (volume rendering & fluid simulation)
- 2010 - 2011 Research Assistant in the Pervasive Computing Lab at Clemson University
Worked on research related to Mobile Ad-Hoc Networks & Social Networks
- 2007 - 2010 Research Assistant in the Telecommunications & Remote Measurements and Control Lab in Xidian University
Finished a testbed for Mobile IPv6 & Network Mobility (NEMO). (designed & transplanted the kernel & device drivers for WiFi & 3G dongles; implemented L2 & L3 handoff code for an embedded device)
- 2005 - 2007 Student Contest Projects.
Finished an Embedded Advertisement LCD; An multifunctional mobile device that can video chat over limited bandwidth using optimized H.264 codec; J2EE based secure online banking

Publications

Journal & Conference Paper

- submitted 6. K. Chen, J. Liu, H. Hu, K.C. Wang, J. Martin *Exploiting SDN for Efficient Flow Scheduling in Integrated LTE-WiFi Network* under review by SECON, 2017
- accepted 5. A. Rayamajhi, A. Alsuhaimeh, M. Kaur, J. Liu, M. Rahman, J. Martin, etc. *ThinGs In a Fog: System Illustration with Connected Vehicles*, accepted by VTC-Spring, 2017
- accepted 4. J. Liu, A. Rayamajhi, J. Martin *Using MPTCP subflow association control for heterogeneous wireless network optimization*, accepted by WiOpt, 2016
- accepted 3. J. Liu, Y. Fu, J. Martin *Using Cloud Computing to Support Higher Education in Computer Networks and Systems*, International Journal of Cloud Computing, 2015
- accepted 2. J. Liu, Y. Fu, J. Martin *Using Cloud Computing to Support Higher Education in Computer Networks and Systems*, Proceedings of 2nd International IBM Cloud Academy Conference 2014 (Atlanta, GA, May 2014)
1. R. Izard, A. Hodges, J. Liu, J. Martin, K. Wang, K. Xu, *An OpenFlow Testbed for the Evaluation of Vertical Handover Decision Algorithms in Heterogeneous Wireless Networks*, Proceedings of 9th International Conference on Testbeds and Research Infrastructures for the Development of Networks & Communities (TRIDENTCOM 2014), (Guangzhou China, May 2014).
- 2012 0. H. Shen, J. Liu, K. Chen, J. Liu, S. Moyer, *SCPS: A Social-aware Distributed Cyber-Physical Human-centric Search Engine*, (IEEE Transactions on Computers, Volume PP, Issue 99) (2012)
- 2011 -1. J. Liu, H. Shen, Z. Li, S. Loeb, S. Moyer, *SCPS: A Social-aware Distributed Cyber-Physical Human-centric Search Engine*, (IEEE Global Telecommunications Conference 2011, GLOBECOM 2011) (Houston, TX, December 2011)
- 2010 -2. J. Liu, *Design and Implementation of fast and secure Mobile IPv6 handover scheme*, (Xidian University Master Thesis, 2010) (Xi'an, China, April 2010)

Patent

- 2014 1. (with R. Haimi-Cohen, L. Liu, J. Hong) *Systems and methods for transmission of compressive sensing data*, Bell Labs, Alcatel-Lucent, NJ

Demos & Posters

- 2016 3. (with A. Rayamajhi, M. Rahman, A. Alsuhaimeh) *Enabling Connected Vehicle Applications with Edge Computing and HetNet*, USIgnite Application Summit, Austin, TX
- 2014 2. (with A. Rayamajhi) *Enabling Connected Vehicle Applications through Advanced Networking Technology*, IBM University Day 2014, Research Triangle Park, NC
1. (with A. Rayamajhi, K. Chen, K. Ramakrishnan) *Advanced Networking Infrastructure for Emerging Connected Vehicles*, GENI Conference 21, Indianapolis, IN
- 2006 0. (with S. Lu, K. Xu) *A multimedia communication companion* Intel Embedded System Design Contest Asian, 2006

Objective Research Scientist or Software Engineer

References

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