Guyue (Grace) Liu

CONTACT
INFORMATION

PhD Student
George Washington University
800 22nd St NW, Room 4000
Washington, DC 20052

Mobile: +1-631-682-6511
E-mail: guyue@gwu.edu
WWW: http://grace-liu.github.io/

RESEARCH
INTERESTS

Networking and Cloud Computing : Software-Defined Networking (SDN), Network Function Virtualization (NFV) and Cloud Platform

EDUCATION

George Washington University   Sept 2013 - Present
Ph.D., Computer Science, GPA: 3.9 / 4.0
Advisor: Timothy Wood

Beijing University of Posts and Telecommunications   Sept 2008 - July 2012
B.S., Electrical Engineering, GPA: 89.75 / 100, Rank: 4 / 145
Thesis: *Optimizing live migration of virtual machines*

CONFERENCE &
WORKSHOP
PUBLICATIONS

NetAlytics: Cloud-Scale Application Performance Monitoring with SDN and NFV
Guyue Liu, Michael Trotter, Yuxin Ren, Timothy Wood, Under Submission.

Protocols to Support Autonomy and Control for NFV in Software Defined Networks
Ali Mohammadkhan, **Guyue Liu**, Wei Zhang, K.K. Ramakrishnan, Timothy Wood, *IEEE Conference on Network Function Virtualization & Software Defined Networks (IEEE NFV-SDN)*, Nov 2015.

NetDefense: Scalable, Flexible and Efficient DDoS Prevention with SDN and NFV
Guyue Liu, Timothy Wood, *Workshop on Supporting Diversity in Systems Researches (Diversity'15 co-located with SOSP'15)*, Oct 2015.

NetAlytics: Flexible and Dynamic Network Analysis Framework
Guyue Liu, Timothy Wood, *Poster in Symposium on Networked System Design and Implementation (NSDI'15 Poster)*, May 2015.

SDNFV: Towards a Flexible and Dynamic Smart Data Plane
Wei Zhang, **Guyue Liu**, Ali Mohammadkhan, Jinho Hwang, K.K. Ramakrishnan, Timothy Wood. *Poster in Symposium on Networked System Design and Implementation (NSDI'15 Poster)*, May 2015.

Virtual Function Placement and Traffic Steering in Flexible and Dynamic Software Defined Networks
Ali Mohammadkhan, Sheida Ghapani, **Guyue Liu**, Wei Zhang, K.K. Ramakrishnan, Timothy Wood, *IEEE International Workshop on Local and Metropolian Area Networks (LANMAN)*, April 2015.

Cloud-Scale Application Performance Monitoring with SDN and NFV
Guyue Liu, Timothy Wood, *IEEE International Workshop on Cloud Analytics (IWCA'15)*, March 2015.

Topology Discovery & Service Classification for Distributed-Aware Clouds
Jinho Hwang, **Guyue Liu**, Sai Zeng, Frederick y Wu, Timothy Wood, *IEEE International Workshop on Cloud Analytics (IWCA'14)*, March 2014.

JOURNAL ARTICLES	**CloudNet: Dynamic Pooling of Cloud Resources by Live WAN Migration of Virtual Machines.** Timothy Wood, K.K. Ramakrishnan, Prashant Shenoy, Jacobus Van der Merwe, Jinho Hwang, **Guyue Liu**, Lucas Chaufournier, *IEEE/ACM Transactions on Networking*, Oct 2015.

Towards a Software-Based Network: Integrating Software Defined Networking and Network Function Virtualization. Timothy Wood, K.K. Ramakrishnan, Jinho Hwang, **Guyue Liu**, Wei Zhang, *IEEE Network*, May 2015.

An Adaptive Bandwidth Allocation Algorithm for Live Migration Based on Service Features. Liu Shihai, Sun Yuqing, **Liu Guyue**, *Chinese Journal of Computers*, Sept 2013.

PROFESSIONAL EXPERIENCE

Research Intern, **BBN Technologies**   Summer 2015
- Project: Real Time Network and Application Performance Monitoring Framework
- Mentor: Niky Riga

Research Intern, **Chinese Academy of Sciences**   Sept 2011 - May 2012
- Project: Optimizing Network Performance of Virtual Machine Live Migration
- Mentors: Yuzhong Sun and Ying Song

Summer Intern, **Queen Mary, University of London**   Summer 2011
- Project: Elastic Message-oriented Middleware System on Top of Cloud Platform
- Mentors: Yasir Alfadhl and John Bigham

TEACHING EXPERIENCE

Guest Lecturer, **George Washington University**   Fall 2015
- Global Environment for Network Innovations (GENI) Tutorial

Teaching Assistant, **George Washington University**   Fall 2013 - Spring 2015
- CSCI 2113 Software Engineering

Teaching Assistant, **Stony Brook University**   Fall 2012 - Spring 2013
- ESE 123 Introduction to Electrical and Computer Engineering
- ESE 124 Computer Techniques for Electronic Design I

AWARDS & HONORS

ACM Travel Grant for attending Diversity'15 and SOSP'15	Oct 2015
USENIX NSDI Travel Grant for attending NSDI'15	May 2015
First Place in 22nd GENI Engineering Conference Competition	Mar 2015
GWU 2015 SEAS R&D Showcase Finalists	Feb 2015
HP Helion OpenStack Scholarship **(4 / 200)**	Dec 2014
GWU Women Scholarship for attending Grace Hopper'14	Oct 2014
ACM SIGCOMM Travel Grant for attending SIGCOMM'14	Aug 2014
NSF Student Scholarship for GENI Summer Camp'14	July 2014
First Class Academic Scholarship of BUPT	Sept 2011
Winner of Summer Research Project in London **(4 /511)**	July 2011

TECHNICAL SKILLS

Language: C, Python, Java, Matlab, Linux Shell Script, OpenFlow

Cloud & Virtualization Platform: OpenStack, Eucalyptus, Xen, KVM, OpenvSwitch, Mininet

SDN Controller & Packet Processing Library: Ryu, POX, DPDK, PR_RING