Yang Zhang

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EDUCATION

Ph.D.	Computer Science	University of Minnesota - Twin Cities, USA	(Expected) June 2018
M.S.	Computer Science	Southeast University, China	June 2013
B.S.	Software Engineering	Southeast University, China	June 2011

SKILLS

Research Fields: Network Function Virtualization, Software Defined Network, Network Security

Languages: C/C++, Python, Java, shell scripting, swift, C#, HTML, PHP, JavaScript, CSS

Tools: DPDK, VPP, BESS, OVS, Openflow Switch, SR-IOV, Hypervisor, KVM, Qemu, Virsh, Linux Namespace, Docker Container, Machine Learning, Pattern Recognition, Classification, Clustering, Weka toolbox, Android Framework, Android development, iOS development, Mininet, Matlab, NS2, Hadoop, Hive, Spark, Hbase, Kafka, Raft Consensus, SPSS, Basic Image Processing (e.g., laplace edge detection), Beautifulsoup, TinyOS, Relational Database, Gnuplot, Restful Web Services, Jersey Restful API, J2EE, Struts, Programming Design Patterns, .Net Framework, API Hook, Valgrind for buffer overflow, Linux driver development

AWARDS

Google Merit Scholarship (2/500)	2012 - 2013
Envision Energy Merit Scholarship (1/500)	2012 - 2013
Third Prize in "Microsoft Imagine Cup Software Design Competition"	2011 - 2012
First Prize in "3rd National Software Innovation Competition"	2010 - 2011
Top 8 in China in "Microsoft Imagine Cup Software Design Competition"	2010 - 2011
Merit Student in Southeast University	2008 - 2009

INTERNSHIPS

Research Intern, Network Security, Cisco Systems, San Jose, CA, USA   08/2016-10/2016
- Research on Network Security (main idea: associate correlated network flows for malware pattern clustering)

Summer Research Intern, NFV, AT&T Labs, Bedminster, NJ, USA   05/2016-07/2016
- Research on Network Function Virtualization (main idea: parallelize network service chain based on Berkeley BESS)

Summer Research Intern, MPTCP, Bell Labs, Holmdel, NJ, USA   05/2015-08/2015
- Research on Multipath TCP (main idea: exploit MPTCP sequence number and build a flow association framework)

Summer Research Intern, Network Security, Narus Inc., Sunnyvale, CA, USA   05/2014-08/2014
- Research on ISP Data (main idea: analyze HTTP user agent fields by entropy analysis and classification for malware study)

Software Development Intern, Vehicle Operating System, Microsoft Inc., Beijing, China   07/2010-10/2010
- Software Development on Windows CE based car driving embedded system

PUBLICATIONS

ParaBox: Exploiting Parallelism for Virtual Network Functions in Service Chaining
- Yang Zhang, Bo Han, Bilal Anwer, Vijay Gopalakrishnan, Joshua Reich, Aman Shaikh, Zhi-Li Zhang, SOSR, 2017

SAMPO: Online Subflow Association for Multipath TCP with Partial Flow Record
- Yang Zhang, Hesham Mekky, Fang Hao, Sarit Mukherjee, Zhi-Li Zhang and T V Lakshman, INFOCOM, 2016

SDN-based Remote Home Network Management
- Yang Zhang, Zhi-Li Zhang, Poster of AT&T Labs SDN Summit, 2016

Detecting Malicious Activities with User-Agent Based Profiles
- Yang Zhang, Hesham Mekky, Zhi-Li Zhang, Ruben Torres, Sung-Ju Lee, Alok Tongaonkar and Marco Mellia, IJNM, 2015

Fingerprint Attack against Touch-enabled Devices
- Yang Zhang, Peng Xia, Junzhou Luo, Zhen Ling, Benyuan Liu, Xinwen Fu, ACM CCS Workshop SPSM, 2012

A Novel Network Delay based Side-channel Attack: Modeling and Defense
- Zhen Ling, Junzhou Luo, Yang Zhang, Ming Yang, Xinwen Fu, INFOCOM, 2012

Wireless Sensor Network-enabled Intravenous Infusion Monitoring (I made wireless sensor hardware from scratch)
- Yang Zhang, Sanfeng Zhang, Yi Ji, Guoxin Wu, IET Journal of Wireless Sensor Systems, 2011

Intelligent Analysis and Disposal of Malicious Behavior in Android System
- Yang Zhang, Junzhou Luo, Master Thesis, 2013