

# ShuangHe Peng

North 302, No.9 Building, School of Computer and  
Information Technology  
Beijing Jiaotong University

Phone: +86-10-51682592  
Email: shhpeng@m.bjtu.edu.cn

## Education

Research Scholar, Indiana University at Bloomington (advised by Professor XiaoFeng Wang), 2015.3-2016.4.

Ph.D., Computer Application Technology(advised by ChangXiang Shen), Beijing Jiaotong University, 2006.

M.S., Computer Application Technology(advised by NaiKang Ge), Beijing Jiaotong University, 1999.

B.S., Computer Application Technology, Changchun Institute of Optics and Fine Mechanics, 1996.

## Appointments

Computer Center, Beijing Information Science & Technology University, Beijing, China, April 1999-March 2008.

School of Computer and Information Technology, Beijing Jiaotong University, Beijing, China, April 2008-Present.

## Awards

2013 - Outstanding Teaching Award, School of Computer and Information Technology, Beijing Jiaotong University

2013 - Excellent Teachers in Charge of a Class, School of Computer and Information Technology, Beijing Jiaotong University

2012 - Excellent Teachers in Charge of a Class, School of Computer and Information Technology, Beijing Jiaotong University

## Research Interests

System Security, Security and Privacy Issues on Cloud Storage, Algorithms Design for Security and Privacy.

## Research Support

(PI), **ShuangHe Peng**, Fundamental Research Funds for the Central Universities of China under Grant No.2015JBM034. 2015 to 2016.

(PI), **ShuangHe Peng**, Fundamental Research Funds for the Central Universities of China under Grant No.2011JBM221. 2011 to 2013. Status: Completed.

(PI), **ShuangHe Peng**, Research on Secret Protection Technology for Computer System, 2011 to 2012. Status: Completed.

Project "Anonymous Proof and Privacy Protection based on TCM" supported by the National Natural Science Foundation of China (Grant No. 60973112).

Project supported by the National High Technology Research and Development Program of China.

1. Project "Research on Trusted Supporting Techniques for Virtual Personal Computer System" (Grant No. 2007AA01Z177).
2. Project "Research on building trusted chain for trusted computing platform" (Grant No. 2007AA01Z410).
3. Project "Research on Security Architecture for Computer Information System" (Grant No. 2002AA144020).

## Publications

### *Journal Articles*

**ShuangHe Peng**, ZhiGe Chen, DeEn Chen. Membership Proof and Verification in Authenticated Skip Lists based on Heap, *China Communications*, 13(6):195-204, 2016.

**ShuangHe Peng**, ZhiGe Chen, DeEn Chen. Performance analysis and comparison of data integrity authentication for authenticated skip lists, *Journal of Beijing Jiaotong University*, 40(2):58-62, 2016.

**ShuangHe Peng**, Zhen Han. Enhancing PC Security with a U-Key, *IEEE Security & Privacy*, 4(5):34-39, 2006.

**ShuangHe Peng**, Zhen Han, Changxiang Shen. Security protocol and scheme for inter-realm information accessing, *Journal of Computer Research and Development*, 42(9):1587-1593, 2005.

**ShuangHe Peng**, Zhen Han. A Way to Extend the Authentication Capability of Application Boundary Security Device, *Journal of Beijing Jiaotong University*, 28(5):6-10, 2004.

**ShuangHe Peng**. The design and implementation of T=0 protocol of smart card based on USB control chip, *Journal of computer applications*, Vol.24, 2004.

**ShuangHe Peng**, Genxing Yang. The design and implementation of pseudo-SPI technology under 32-bits micro-processor, *Journal of micro-computer and its applications*, 21(2):25-27, 2002.

### *Proceedings*

**ShuangHe Peng**, Yingjie Qin and Zhige Chen. A Simple and More Versatile Authentication Path Computation Algorithm for Binary Hash Tree, the Third ASE International Conference on Cyber Security, CyberSecurity2014.Stanford, CA, USA.

**ShuangHe Peng**, Meng Fan, Yingjie Qin and Zhige Chen. A Public-Verifiable Secure Logging Scheme on Chinese Trusted Platform, Proceedings of the International Conference on Cyber Science and Engineering, CyberSE 2013, Pages:324-330.

**ShuangHe Peng**, Jiqiang Liu. Trust Verification of Booting File in Real Mode Using Portable TPM, Proceedings of 2011 Cross-Strait Conference on Information Science and Technology and iCube, Pages:239-242.

**ShuangHe Peng**, Zhen Han. Trusted Boot System Using Portable TPM on EFI based BIOS, Proceedings of 2010 Cross-Strait Conference on Information Science and Technology, Pages:161-164.

**ShuangHe Peng**, Zhen Han. The Design and Implementation of Portable TPM Device Driver based on Extensible Firmware Interface, 2009 International Conference on Multimedia Information Networking and Security, Mines'09, Pages:342-345.

**ShuangHe Peng**, Zhen Han. Trust of user using U-Key on trusted platform, 2008 8th International Conference on Signal Processing, ICSP 2006, Pages:3023-3026.

**ShuangHe Peng**, Zhen Han. Proxy cryptography for secure inter-domain information exchanges, 11th Pacific Rim International Symposium on Dependable Computing, PRDC 2005, Pages:193-199.

**ShuangHe Peng**, Zhen Han. ID-Based Proxy Signature and Designated-verifier Proxy Signature Scheme from Bilinear Maps, Chinese Conference of Information and Communication Security CCI-CS'2005, Pages:220-227.

**ShuangHe Peng**, Jiqiang Liu. Security Enhancement for Two Remote User Authentication Schemes. ICSP'04 Proceedings, Pages:2628-2631, 2004.

**ShuangHe Peng**. Apply secure policy infrastructure to build active and defensive application boundary device, the 19th Chinese Conference of Computer Security, 2004.

## Patents and Inventions

P.R.China Patent Number: 200810238938. Method to verify boot files based on portable Trusted Platform Module. **ShuangHe Peng**, Zhen Han and Jiqiang Liu. Filed: December, 2008. Issued: October 2010 (Inventor).

P.R.China Patent Number: 201110355883.4. Method to build hypervisor using hardware assisted virtualization before operation system is booted. **ShuangHe Peng**. Filed: October 2011. Issued: May 2014 (Inventor).

P.R.China Patent Number: 201310341001.8. Method to get authentication path for Merkle tree. **ShuangHe Peng**. Filed: August 2013 (Inventor).

P.R.China Patent Number: 201310495388.2. Method to get authentication path for skip list based on max heap. **ShuangHe Peng**. Filed: October 2013 (Inventor).

## Computer Software Copyright

P.R.China Registration No. 2011SRBJ4103. Computer software (version 1.0) for the trusted verification of NTFS files in real mode. **ShuangHe Peng**, Zhen Han and Jiqiang Liu. Issued: June 2011.

P.R.China Registration No. 2008SRBJ5042. Computer software (version 1.0) of UKey driver in real mode. **ShuangHe Peng**. Issued: November 2008.

## Services

Member of Program Committees of Chinese Conference on Trusted Computing and Information Security (CTCIS) 2010, 2013 and 2014.

Reviewer of IEEE Access, 2014.

## Courses Taught

Data structure, Level: Undergraduate

Programming Languages, Level: Undergraduate

Computer Network, Level: Undergraduate

Basis of Computer, level: Undergraduate

Wireless Network Security, level: Graduate

ShuangHe Peng Last updated: July 16, 2016