

Kexiong (Curtis) Zeng

Personal Information

Name Kexiong (Curtis) Zeng
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Address Department of Electrical and Computer Engineering, Virginia Tech
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Education

- 2013 – Present **Virginia Tech**, Blacksburg, VA, USA.
PhD student of Computer Engineering in the ECE Department
Primary advisor: **Dr. Yaling Yang** at **Virginia Tech**
Co-advisor: **Dr. Ranveer Chandra** at **Microsoft Research**
GPA: **3.93**/4.00
- 2012 – 2013 **Virginia Tech**, Blacksburg, VA, USA.
NSF funded undergraduate intern under **Dr. Yaling Yang**
- 2009 – 2013 **University of Electronic Science and Technology of China**, Chengdu, P.R.China.
B.Eng. in Communications Engineering
Graduated from **Yingcai Honors College**
GPA: **3.83**/4.00 Ranking: **1**/110 in the third year

Research Interests

I build/secure computer networks and systems, especially for wireless and mobile ones. Specifically, two threads tying my research works together are **secure-localization** and **energy-aware**.

Publications

Conference Papers

- HotMobile 2017 **A Practical GPS Location Spoofing Attack in Road Navigation Scenario.**
Kexiong (Curtis) Zeng, Yuanchao Shu, Shinan Liu, Yanzhi Dou, and Yaling Yang
The 18th Workshop on Mobile Computing Systems and Applications, February 2017.
- MobiHoc 2016 **P2-SAS: Preserving Users' Privacy in Centralized Dynamic Spectrum Access Systems.**
Yanzhi Dou, Kexiong (Curtis) Zeng, He Li, Yaling Yang, Bo Gao, Chaowen Guan, Kui Ren, and Shaoqian Li
The 17th International Symposium on Mobile Ad Hoc Networking and Computing, July 2016.
- INFOCOM 2016 **Incentivizing Spectrum Sensing in Database-Driven Dynamic Spectrum Sharing.**
Bo Gao, Sudeep Bhattarai, Jung-Min (Jerry) Park, Yaling Yang, Min Liu, Kexiong (Curtis) Zeng, and Yanzhi Dou
The 35th Annual IEEE Conference on Computer Communications, April 2016.

- INFOCOM 2015 **MadeCR: Correlation-based Malware Detection for Cognitive Radio.**
Yanzhi Dou, Kexiong (Curtis) Zeng, Yaling Yang, and Danfeng Yao
The 34th Annual IEEE Conference on Computer Communications, April 2015.
- CNS 2014 **Location Spoofing Attack and Its Countermeasures in Database-Driven Cognitive Radio Networks.**
Kexiong (Curtis) Zeng, Sreeraksha Kondaji Ramesh, and Yaling Yang
IEEE Conference on Communications and Network Security, October 2014.
- MSN 2012 **Let Me Take Care of Myself: A Vehicle Self-Gratification System Using Vehicular Sensors and Mobile Phones.**
Xing Zhang, Haigang Gong, Kexiong (Curtis) Zeng, Jinchuan Tang, Nianbo Liu, Zongyi Xu, and Bang Liu
The 8th IEEE International Conference on Mobile Ad-hoc and Sensor Networks, December 2012.

Posters and Demos

- MobiCom 2016 **Preserving Incumbent Users' Privacy in Exclusion-Zone-Based Spectrum Access Systems.**
Yanzhi Dou, Kexiong (Curtis) Zeng, Yaling Yang, and Kui Ren
The 22nd Annual International Conference on Mobile Computing and Networking, October 2016.
- ICDCS 2016 **Preserving Incumbent Users' Privacy in Server-Driven Dynamic Spectrum Access Systems.**
Yanzhi Dou, He Li, Kexiong (Curtis) Zeng, Jinshan Liu, Yaling Yang, Bo Gao, and Shaoqian Li.
The 36th IEEE International Conference on Distributed Computing Systems, June 2016.
- MobiSys 2015 **Location Verification and Recovery for Mobile In-Vehicle Applications.**
Kexiong (Curtis) Zeng, Yanzhi Dou, Yaling Yang, and Ranveer Chandra
The 13th Annual International Conference on Mobile Systems, Applications, and Services, May 2015.
- MobiCom 2015 **Privacy-Preserving Server-Driven Dynamic Spectrum Access System.**
Yanzhi Dou, Kexiong (Curtis) Zeng, and Yaling Yang
The 21st Annual International Conference on Mobile Computing and Networking, September 2015.
- DySpan 2014 **Location Robustness in Database-Driven White Spaces Network.**
Kexiong (Curtis) Zeng, Sreeraksha Kondaji Ramesh, and Yaling Yang
IEEE Symposium on Dynamic Spectrum Access Networks, April 2014.

Journal Papers

- IEEE JSAC **P2-SAS: Privacy-Preserving Centralized Dynamic Spectrum Access System.**
Yanzhi Dou, Kexiong (Curtis) Zeng, He Li, Yaling Yang, Bo Gao, Kui Ren, and Shaoqian Li
IEEE Journal on Selected Areas in Communications.

Academic Experiences

- 09/2012 – Present **Virginia Tech SHINE Laboratory**, Blacksburg, VA.
Advisor: Dr. Yaling Yang and Dr. Ranveer Chandra
- Towards internet access at sea : energy harvesting maritime white space networks
 - Practical GPS spoofing attacks and countermeasures for location-based mobile applications
 - Location spoofing attacks & countermeasures in database-driven cognitive radio networks
- 05/2011 – 07/2012 **UESTC Network & Information System Laboratory**, Chengdu, China.
Advisor: Dr. Ming Liu

- A sensor-based vehicular self-gratification system

Internship Experiences

- 06/2015 – 01/2016 **Microsoft Research**, Beijing, China.
Worked with Drs. Borje Karlsson, Thomas Moscibroda, Ranveer Chandra, and Anirudh Badam at Cloud & Mobile Group
- Software Defined Batteries Project
 - Designed, implemented and evaluated charge/discharge algorithms in a self-build c# software defined battery simulator.
 - Internet of Things Project
 - Designed and implemented server-client Android applications under AllJoyn IoT framework.

Teaching Experiences

- Fall 2013 **ECE 4564: Network Application Design.**
ECE Department, Virginia Tech
- Taught pragmatic network programming skills based on **Android** platform.

Honors and Awards

- 2017 **HotMobile student travel grant.**
National Science Foundation
- 2014 **IEEE DySpan, CNS student travel grant.**
National Science Foundation
- 2013 **Excellent graduate of UESTC.**
University of Electronic Science and Technology of China
- 2012 – 2013 **NSF REU funded undergraduate intern.**
National Science Foundation
- 2011 – 2012 **National Scholarship** (Top 1%).
and 2009 – 2010 Ministry of Education of China
- 2012 and 2010 **Third Prize in the UESTC Programming Contest.**
University of Electronic Science and Technology of China

Talks

- Nov 2015 **Security and Privacy Issues in Internet of Things.**
UESTC Yingcai Seminar, Chengdu, China.
- Oct 2014 **Location Spoofing Attack and Its Countermeasures in Database-Driven Cognitive Radio Networks.**
IEEE CNS, San Francisco, USA.

Professional Activities

- Journal & Conference Reviewer
IEEE Transactions on Mobile Computing (**TMC**), IEEE Journal on Selected Areas in Communications (**JSAC**), IEEE INFOCOM, IEEE ICNC

Skills

Programming Python/MATLAB (proficient), C/C++/Java (prior experience)
Platform Windows, Linux, Android, GNURadio and AllJoyn