Si Chen

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Education

* **University at Buffalo - SUNY** — Buffalo, NY
  Ph.D., Computer Science (GPA 3.8) — *Sep. 2012 - Feb. 2016*
    - Research Assistance in Ubiquitous Security and Privacy Research Laboratory (UbiSeC Lab)

* **University at Buffalo - SUNY** — Buffalo, NY
  M.S., Electrical Engineering (GPA 3.8) — *Sep. 2010 - May. 2012*
    - Research Assistance in Wireless Networks and Embedded Systems Lab (WINES Lab)

Selected Publications

* Si Chen, Muyuan Li, Kui Ren, Xinwen Fu, Chunming Qiao, *"Rise of the Indoor Crowd: Reconstruction of Building Interior View via Mobile Crowdsourcing,"* in **Proceedings of the 13th ACM Conference on Embedded Networked Sensor Systems (SenSys),** 2015.

* Si Chen, Muyuan Li, Kui Ren, Chunming Qiao, *"CrowdMap: Accurate Reconstruction of Indoor Floor Plan from Crowdsourced Sensor-Rich Videos,"* in **Proceedings of the 35th IEEE International Conference on Distributed Computing Systems (ICDCS),** 2015.

* Muyuan Li, Haojin Zhu, Zhaoyu Gao, Si Chen, Le Yu, Shangqian Hu, Kui Ren, *"All your location are belong to us: Breaking mobile social networks for automated user location tracking,"* in **Proceedings of the 15th ACM international symposium on Mobile ad hoc networking and computing (Mobihoc),** 2014.

* Bingsheng Zhang, Qin Zhan, Si Chen, Muyuan Li, Kui Ren, Cong Wang, Di Ma, *"PriWhisper: Enabling Keyless Secure Acoustic Communication for Smartphones,"* in **IEEE Internet of Things Journal,** 2014.

* E Koski, S Chen, S Pudlewski, T Melodia, *"Network simulation for advanced HF communications engineering,"* in **The 12th International Conference on Ionospheric Radio Systems and Techniques (IRST), 2012.**

Research Projects

* **IndoorCrowd** — Buffalo, NY
  Project Leader, Ubiquitous Security and Privacy Research Laboratory (UbiSeC Lab) — *Jun. 2013 - Present*
    - Proposed a low-cost crowdsource-based method to reconstruct indoor floor plan that utilize sensor-rich video data from mobile users.
    - Innovatively exploited the sequential relationship between consecutive frames to improve system performance. Our experiments in three college buildings demonstrate that we achieve a hallway shape precision of 88%.

* **AcousAuth** — Buffalo, NY
  Project Leader, Ubiquitous Security and Privacy Research Laboratory (UbiSeC Lab) — *Jun. 2013 - Oct. 2013*
    - Designed and Implemented a smartphone empowered personal authentication system exploiting keyless acoustic communication.
    - Winner of the 19th Annual International Conference on Mobile Computing and Networking (MobiCom'13) App Competition Finalists (top 10).

Work Experience

* **Sina Weibo (China)** — Beijing, China
  Application Dev Engineer (Internship) — *Apr. 2010 - July. 2010*
    - Used Python (Matplotlib), Javascript (jQuery) and PHP with MySQL to build an UNIX cluster administration system
    - Created an usage frequency indicator to show Weibo's current usage frequency in different areas using Python, C, PHP with MySQL, Javascript

Skills

Programming Languages: Python, Javascript, Java, C++, C

Operating Systems: Linux (Gentoo, ArchLinux), OS X, Windows,