

### Education

- Mar. 2015 – **University of New South Wales (UNSW), Australia.**
- Dec. 2018 Ph.D., Computer Science & Engineering,  
**Advisor:** *Prof. Aruna Seneviratne and A/Prof. Wen Hu*  
**Dissertation:** *"Privacy-preserving Internet of Things Analysis Architecture."*
- June. 2011 – **University of Tasmania, Australia.**
- Dec. 2013 M.Sc., Computer Science,  
**Advisor:** *Prof. Byeong Kang*  
**Dissertation:** *"Arduface: An Embedded System Analysis Tool."*
- Sep. 2007 – **University of Tasmania, Australia & Shanghai Ocean University, China.**
- Jul. 2011 B.Sc., Computer Information System; B.Bm., Business Information System

### Awards and Honors

- March 2017 **IEEE&ACM IPSN Student Travel Award**, IEEE&ACM IPSN 2017.
- March 2017 **PRSS Conference Travel Fund**, UNSW.
- 2015 – 2018 **Australian Postgraduate Award**, Australia.
- 2015 – 2018 **Research Project Top-up Scholarship**, NICTA.
- June 2012 **Golden Key International Honour Society**, *Top 15% Students Invited*, Worldwide.
- 2011 – 2013 **Postgraduate Scholarship**, UTAS.

### Research Experience

- Jan. 2019 – **Cybersecurity CRC Program.**
- Now CybersecurityCRC & UNSW, Sydney, Australia  
*Senior Research Associate (Level B)*
- Mar. 2015 – **Networks Research Group.**
- Dec. 2018 DATA61 (formerly National ICT Australia), CSIRO, Sydney, Australia  
*Research Assistant*
- Mar. 2013 – **Smart Services and Systems research group.**
- Feb. 2015 Department of Computer Science, UTAS, Hobart, Australia  
*Postgraduate Research Assistant*

## Teaching Experience

- 2019 S1 **Guest Lecturer for COMP4337/9337 Securing Wireless Networks**, *Privacy-related Topic*.  
School of Computer Science & Engineering, UNSW  
Lecturer in Charge: Professor Sanjay Jha.
- 2017,2018 S1 **Tutor for BIOM9450: Clinical Information System**.  
Graduate School of Biomedical Science & Engineering, UNSW  
Lecturer in Charge: Scientia Professor Nigel Lovell.
- 2016,2017 **Supervise Undergraduates**.  
School of Computer Science & Engineering, UNSW  
Andrew Peacock with thesis titled: Benchmarking for different privacy-preserving systems.  
Albert Kerr with thesis titled: Privacy-preserving cloud services for Internet of Things.

## Publications

- J.1 W. Xue, C. Luo, Y. Shen, C. Luo, R. Rana, G. Lan, S. Jha, A. Seneviratne and W. Hu, "Towards A Compressive-Sensing-Based Lightweight Encryption Scheme for the Internet of Things," **Submitting**.
- J.2 W. Xue, W. Xu, Y. Shen, C. Luo, W. Hu, and A. Seneviratne, "Toward Privacy-preserving Edge-based Classification with Differential Privacy," **Submitting**.
- J.3 Q. Yang, Y. Shen, F. Yang, J. Zhang, W. Xue, and H. Wen, "HealCam: Energy-efficient and privacy-preserving human vital cycles monitoring on camera-enabled smart devices," **Elsevier Computer Networks**.
- J.4 C. Luo, X. Liu, W. Xue, Y. Shen, J. Li, W. Hu, and Alex X. Liu, "Predictable Privacy-Preserving Mobile Crowd Sensing: A Tale of Two Roles," **Accepted by IEEE/ACM Transactions on Networking**.
- C.1 W. Xue, A. Seneviratne, W. Hu and S. Jha, "BFace: Efficient Privacy-Preserving Face Representation in Bloom Filter Space," In (**submitting**).
- C.2 W. Xue, D. Vatsalan, W. Hu and A. Seneviratne, "Sequence Data Matchings and Beyond: New Privacy-preserving Primitives based on Bloom Filters," In (**submitting**).
- C.3 W. Xue, Y. Shen, W. Hu, and A. Seneviratne, "Acies: A Privacy-Preserving System for Edge-based Classification," In The 17th IEEE International Conference On Trust, Security And Privacy In Computing And Communications (**Trustcom**), April 2018. (ERA Rank A)
- C.4 W. Xue, C. Luo, G. Lan, R. Rana, W. Hu, and A. Seneviratne, "Kryptein: A Compressive-Sensing-Based Encryption Scheme for the Internet of Things," In ACM/IEEE International Conference on Information Processing on Sensor Networks (**IPSN**), April 2017. (Acceptance rate: 19/104=18% ERA Rank A\*)
- C.5 W. Xue, H. Chung, SC. Han, Y. Kim, and BH. Kang, "Arduface: An Embedded System Analysis Tool," In Pacific Rim International Conference on Artificial Intelligence (**PRICAI**), Dec 2014. (ERA Rank B)
- A.1 W. Xue, C. Luo, R. Rana, W. Hu and A. Seneviratne, "CScript: A Compressive-Sensing-Based Encryption Engine for the Internet of Things: Demo Abstract," In Proceedings of the 14th ACM Conference on Embedded Network Sensor Systems (**Sensys**), Now 2016.

## Professional Activities

### Conference/Workshop Chair

- Local Arrangement Co-Chairs, Cyber-Physical Systems and Internet-of-Things Week, 2020. CPSWeek is including top conferences: HSCC, ICCPS, IPSN and RTAS.

### Review Service for Journal

- IEEE Access, IEEE Trans. of Internet of Things, IEEE IoTJournal

## External Review Service for Conference

- o 2018: IEEE ICDCS ,ACM/IEEE IPSN
- o 2017: ACM SenSys, IEEE LCN, ACM/IEEE IoTDI
- o 2016: ACM SenSys

## Presentations

- o “*Privacy-preserving Data Analysis Architecture for the Internet of Things*,”  
Oral Presentation at UNSW Engineering Postgraduate Research Symposium, 2018, ISBN: 978-0-9953910-2-4.
- o “*Kryptein: A Compressive-Sensing-Based Encryption Scheme for the Internet of Things*,”  
Oral Presentation at IEEE&ACM IPSN'17, Pittsburgh, Pennsylvania, USA, April 2017.
- o “*CScript: A Compressive-Sensing-Based Encryption Engine for the Internet of Things*,”  
Demo Presentation at IEEE Sensys'16, Stanford, CA, USA, November 2016.

## References

### Dr. Wen Hu

A/Professor  
School of Computer Science and Engineering  
University of New South Wales, Australia  
✉ [wen.hu@unsw.edu.au](mailto:wen.hu@unsw.edu.au)  
☎ +61 2 9385 7679

### Dr. Aruna Seneviratne

Professor  
School of Electrical Engineering  
University of New South Wales, Australia  
✉ [a.seneviratne@unsw.edu.au](mailto:a.seneviratne@unsw.edu.au)  
☎ +61 2 9385 5389