CURRICULUM VITAE

Zhen Ling

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RESEARCH INTERESTS

Network, Software and System Security, Privacy Enhancing Technologies, Confidential Computing, IoT Security

EDUCATION

09/2005-06/2014

Ph.D. in Computer Application Technology, School of Computer Science and Engineering, Southeast University, Nanjing, China

Dissertation: *Traceback Techniques for Tracing Anonymous Cyber Criminals*

09/2001-07/2005

B.S. in Computer Application Technology, Department of Computer Science and Engineering, Nanjing Institute of Technology, Nanjing, China

EXPERIENCE

05/2021 – Present

Professor, School of Computer Science and Engineering, Southeast University, P.R.China

05/2017 – 04/2021

Associate Professor, School of Computer Science and Engineering, Southeast University, P.R.China

10/2014 – 04/2017

Assistant Professor, School of Computer Science and Engineering, Southeast University, P.R.China

08/2011 – 08/2013

Visiting Research Ph.D. student, Department of Computer Science, University of Victoria, Victoria, British Columbia, Canada

08/2008 – 11/2009

Research Associate, Department of Computer Science, City University of Hong Kong, Hong Kong SAR

MAJOR HONORS AND AWARDS

Distinguished Paper Award at the 44th IEEE International Conference on Distributed Computing Systems (ICDCS), July, 2024

Second Prize of National Higher Education Teaching Achievements of China, July, 2023

Distinguished Member of the INFOCOM 2023 Technical Program Committee, April, 2023

Distinguished Member of the INFOCOM 2022 Technical Program Committee, February, 2022

First Prize of Higher Education Teaching Achievements of Jiangsu Province, November, 2021

Grand Prize of Teaching Achievements of Southeast University, August, 2021

Award of Excellence at GeekPwn, October, 2020

Best Application Paper Award at International Conference on Computer Supported Cooperative Work in Design, IEEE CSCWD 2017

Award of Excellence at GeekPwn, October, 2016

China Computer Federation (CCF) Doctoral Dissertation Award (Only 10 recipients in China), 2015

ACM China Distinguished Doctoral Dissertation Award (Only 2 recipients in China), 2014

ACM Nanjing Chapter Distinguished Doctoral Dissertation Award, 2014

Southeast University Doctoral Dissertation Award, 2015

IEEE INFOCOM Student Travel Grant, 2013

GRANTS

2021.01-2023.12, National Science Foundation of China for Excellent Young Scholars, Grant No. 62022024, Amount: 1.2 million RMB

2019.07-2022.06, Jiangsu Provincial Natural Science Foundation for Excellent Young Scholars, Grant No. BK20190060, Amount: 500,000 RMB

2019.07-2022.6, National Key R&D Program of China, Grant No. 2018YFB2100300, Amount: 4.12 million RMB

2020.01-2023.12, National Science Foundation of China, Grant No. 61972088, Amount: 600,000 RMB

2017.09-2018.09, Ant Financial Research Fund, Amount: 100,000 RMB

2016.01-2018.12, National Science Foundation of China, Grant No. 61502100, Amount: 220,000 RMB

2015.07-2018.06, Jiangsu Provincial Natural Science Foundation of China, Grant No. BK20150637, Amount: 200,000 RMB

PUBLICATIONS

Book Chapter

1. **Zhen Ling**, Yiling Xu, Yier Jin, Cliff Zou, Xinwen Fu, 'New Variants of Mirai and Analysis', in Shen X., Lin X., Zhang K. (eds) *Encyclopedia of Wireless Networks*. Springer, Cham, 2020.

Refereed Conference Publications

1. Xinhui Shao, **Zhen Ling**, Yue Zhang, Huaiyu Yan, Yumeng Wei, Lan Luo, Zixia Liu, Junzhou Luo, Xinwen Fu, 'The Cost of Performance: Breaking ThreadX with Kernel Object Masquerading Attacks', accepted to appear in *Proceedings of the 34th USENIX Security Symposium (Security'25)*, Seattle, WA, USA, August 13–15, 2025.
2. Yue Zhang, **Zhen Ling**, Michael Cash, Qiguang Zhang, Christopher Morales-Gonzalez, Qun Zhou Sun, Xinwen Fu, 'Collapse Like A House of Cards: Hacking Building Automation System Through Fuzzing', in *Proceedings of the 31th ACM Conference on Computer and Communications Security (CCS'24)*, Salt Lake City, USA, October 14-18, 2024.
3. Kaizheng Liu, Ming Yang, **Zhen Ling**, Yue Zhang, Chongqing Lei, Junzhou Luo, Xinwen Fu, 'RIoTFuzzer: Companion App Assisted Remote Fuzzing for Detecting Vulnerabilities in IoT Devices', in *Proceedings of the 31th ACM Conference on Computer and Communications Security (CCS'24)*, Salt Lake City, USA, October 14-18, 2024.
4. Kai Dong, Zheng Zhang, Chuang Jia, **Zhen Ling**, Ming Yang, Junzhou Luo, Xinwen Fu, 'Relation Mining Under Local Differential Privacy', in *Proceedings of the 33rd USENIX Security Symposium (Security'24)*, Philadelphia, PA, USA, August 14–16, 2024.
5. Chongqing Lei, **Zhen Ling**, Yue Zhang, Yan Yang, Junzhou Luo, Xinwen Fu, 'A Friend's Eye is A Good Mirror: Synthesizing MCU Peripheral Models from Peripheral Drivers', in *Proceedings of the 33rd USENIX Security Symposium (Security'24)*, Philadelphia, PA, USA, August 14–16, 2024.
6. Shan Wang, Ming Yang, Jiannong Cao, **Zhen Ling**, Qiang Tang, Xinwen Fu, 'CORE: Transaction Commit-Controlled Release of Private Data over Blockchains', in *Proceedings of the 44th IEEE International Conference on Distributed Computing Systems (ICDCS'24)*, Jersey City, New Jersey, USA, July 23-26, 2024. Acceptance Rate: 21.9% (121 out of 552) [**Distinguished Paper Award**]
7. Xiaolin Gu, Wenjia Wu, Yusen Zhou, Aibo Song, Ming Yang, **Zhen Ling**, Junzhou Luo, 'CQP-RFFI: Injecting a Communication-Quality Preserving RF Fingerprint for Wi-Fi Device Identification', in *Proceedings of the 32nd IEEE/ACM International Symposium on Quality of Service (IWQoS'24)*, Guangzhou, China, June 19–21, 2024. Acceptance Rate: 24.8% (81 out of 326)
8. **Zhen Ling**, Gui Xiao, Lan Luo, Rong Wang, Xiangyu Xu, Guangchi Liu, 'WFGuard: An Effective Fuzz-Testing-Based Traffic Morphing Defense Against Website Fingerprinting', in *Proceedings of the 43rd IEEE International Conference on Computer Communications (INFOCOM'24)*, Vancouver, Canada, May 20-23, 2024. Acceptance Rate: 19.58% (256 out of 1,307)
9. Kaizheng Liu, Ming Yang, **Zhen Ling**, Yuan Zhang, Chongqing Lei, Lan Luo, Xinwen Fu, 'SAMBA: Detecting SSL/TLS API Misuses in IoT Binary Applications', in *Proceedings of the 43rd IEEE International Conference on Computer*

Communications (INFOCOM'24), Vancouver, Canada, May 20-23, 2024. Acceptance Rate: 19.58% (256 out of 1,307)

10. Xiangyu Xu, Yu Chen, **Zhen Ling**, Li Lu, Luo Junzhou, Xinwen Fu, 'mmEar: Push the Limit of COTS mmWave Eavesdropping on Headphones', in *Proceedings of the 43rd IEEE International Conference on Computer Communications (INFOCOM'24)*, Vancouver, Canada, May 20-23, 2024. Acceptance Rate: 19.58% (256 out of 1,307)

11. Yonghuan Xu, Ming Yang, **Zhen Ling**, Zixia Liu, Xiaodan Gu, Lan Luo, 'A De-anonymization Attack Against Downloaders in Freenet', in *Proceedings of the 43rd IEEE International Conference on Computer Communications (INFOCOM'24)*, Vancouver, Canada, May 20-23, 2024. Acceptance Rate: 19.58% (256 out of 1,307)

12. Huaiyu Yan, **Zhen Ling**, Haobo Li, Lan Luo, Xinhui Shao, Kai Dong, Ping Jiang, Ming Yang, Junzhou Luo, Xinwen Fu, 'LDR: Secure and Efficient Linux Driver Runtime for Embedded TEE Systems', in *Proceedings of the 31th Network and Distributed System Security (NDSS'24)*, San Diego, California, USA, February 26-March 1, 2024. Acceptance Rate: 14.98% (104 out of 694)

13. Chunmian Wang, Junzhou Luo, **Zhen Ling**, Lan Luo, Xinwen Fu, 'A Comprehensive and Long-term Evaluation of Tor V3 Onion Services', in *Proceedings of the 42nd IEEE International Conference on Computer Communications (INFOCOM'23)*, New York area, USA, May 17-20, 2023. Acceptance Rate: 19.2% (252 out of 1,312)

14. Chongqing Lei, **Zhen Ling**, Yue Zhang, Kai Dong, Kaizheng Liu, Junzhou Luo, Xinwen Fu, 'Do Not Give a Dog Bread Every Time He Wags His Tail: Stealing Passwords through Content Queries (CONQUER) Attacks', in *Proceedings of the 30th Network and Distributed System Security (NDSS'23)*, San Diego, California, USA, February 27-March 3, 2023. Acceptance Rate: 16.2% (94 out of 581)

15. Xiaolin Gu, Wenjia Wu, Naixuan Guo, Wei He, Aibo Song, Ming Yang, **Zhen Ling**, Junzhou Luo, 'TeRFF: Temperature-aware Radio Frequency Fingerprinting for Smartphones', in *Proceedings of the 19th IEEE International Conference on Sensing, Communication, and Networking (SECON'22)*, Virtual Conference, September 20-23, 2022, pp. 127-135.

16. Xinhui Shao#, Lan Luo#, **Zhen Ling**, Huaiyu Yan, Yumeng Wei, Xinwen Fu, 'fASLR: Function-Based ASLR for Resource-Constrained IoT Systems', in *Proceedings of the 27th European Symposium on Research in Computer Security (ESORICS'22)*, Copenhagen, Denmark, September 26-30, 2022, pp. 531-548. Acceptance Rate: 18.5% (104 out of 562). (# indicates equal contribtion)

17. Shan Wang, **Zhen Ling**, Yue Zhang, Ruizhao Liu, Joshua Kraunelis, Kang Jia, Bryan Pearson, Xinwen Fu, 'Implication of Animation on Android Security', in *Proceedings of the 42nd IEEE International Conference on Distributed Computing Systems (ICDCS'22)*, Bologna, Italy, July 10-13, 2022, pp.1122-1132. Acceptance Rate: 19.9% (114 out of 573)

18. **Zhen Ling**, Gui Xiao, Wenjia Wu, Xiaodan Gu, Ming Yang, Xinwen Fu, 'Towards an Efficient Defense against Deep Learning based Website Fingerprinting', in *Proceedings of the 41st IEEE International Conference on Computer Communications (INFOCOM'22)*, Virtual Conference, May 2-5, 2022. Acceptance Rate: 19.9% (225 out of 1,129)

19. Chunmian Wang, **Zhen Ling**, Wenjia Wu, Qi Chen, Ming Yang, Xinwen Fu, 'Large-scale Evaluation of Malicious Tor Hidden Service Directory Discovery', in *Proceedings of the 41st IEEE International Conference on Computer Communications (INFOCOM'22)*, Virtual Conference, May 2-5, 2022. Acceptance Rate: 19.9% (225 out of 1,129)

20. Kai Dong, Yakun Zhang, Yuchen Zhao, Daoming Li, **Zhen Ling**, Wenjia Wu, Xiaorui Zhu, 'Real-Time Execution of Trigger-Action Connection for Home Internet-of-Things', in *Proceedings of the 41st IEEE International Conference on Computer Communications (INFOCOM'22)*, Virtual Conference, May 2-5, 2022. Acceptance Rate: 19.9% (225 out of 1,129)

21. **Zhen Ling**, Ruizhao Liu, Yue Zhang, Kang Jia, Bryan Pearson, Xinwen Fu, Junzhou Luo, 'Prison Break of Android Reflection Restriction and Defense', in *Proceedings of the 40th IEEE International Conference on Computer Communications (INFOCOM'21)*, Virtual Conference, May 10-13, 2021. Acceptance Rate: 19.9% (252 out of 1,266)

22. Bryan Pearson, Cliff Zou, Yue Zhang, **Zhen Ling**, Xinwen Fu, 'SIC2: Securing Microcontroller Based IoT Devices with Low-cost Crypto Coprocessors', accepted to appear in *Proceedings of the 26th IEEE International Conference on Parallel and Distributed Systems (ICPADS'20)*, 2-4 December 2020, Hong Kong.

23. Lan Luo, Yue Zhang, Cliff Zou, Xinhui Shao, **Zhen Ling**, Xinwen Fu, 'On Runtime Software Security of TrustZone-M Based IoT Devices', accepted to appear in *Proceedings of the 63rd IEEE Global Communications Conference (Globecom'20)*, December 7-11, 2020.

24. Yue Zhang, Jian Weng, **Zhen Ling**, Bryan Pearson, Xinwen Fu, 'BLESS: A BLE Application Security Scanning Framework', in *Proceedings of the 39th IEEE International Conference on Computer Communications (INFOCOM'20)*, Beijing, China, April 27-30, 2020. Acceptance Rate: 19.8% (268 out of 1,354)

25. **Zhen Ling**, Zupei Li, Chen Chen□, Junzhou Luo, Wei Yu, Xinwen Fu, 'I Know What You Enter on Gear VR', in *Proceedings of the 7th IEEE Conference on Communications and Network Security (CNS'19)*, 10-12 June 2019, Washington, D.C., USA.

26. Bryan Pearson, Lan Luo, Yue Zhang, Rajib Dey, **Zhen Ling**, Mostafa Bassiouni, Xinwen Fu. 'On Misconception of Hardware and Cost in IoT Security and Privacy', in *Proceedings of the IEEE International Conference on Communications (ICC'19)*, 20-24 May 2019, Shanghai, China.

27. **Zhen Ling**, Junzhou Luo, Danni Xu, Ming Yang, Xinwen Fu, 'Novel and Practical SDN-based Traceback Technique for Malicious Traffic over Anonymous Networks', in *Proceedings of the 38th IEEE International Conference on Computer Communications (INFOCOM'19)*, Paris, France, April 29-May 2, 2019, pp.1180-1188. Acceptance Rate: 19.7% (288 out of 1,464)

28. Chao Gao, **Zhen Ling**, Biao Chen, Xinwen Fu, Wei Zhao, 'SecT: A Lightweight Secure Thing-Centered IoT Communication System', in *Proceedings of the 15th International Conference on Mobile Ad-hoc and Sensor Systems (MASS'18)*, Chengdu, China, Oct. 9-12, 2018, pp.46-54.

29. Chuta Sano, Chao Gao, Zupei Li, **Zhen Ling**, Xinwen Fu, 'Turning Legacy IR Devices into Smart IoT Devices', in *Proceedings of the 13th International Conference on*

Wireless Algorithms, Systems, and Applications (WASA'18), Tianjin, China, June 20-22, 2018, pp.412-424.

30. Zhen Ling, Junzhou Luo, Yaowen Liu, Ming Yang, Kui Wu, Xinwen Fu, 'SecTap: Secure Back of Device Input System for Mobile Devices', in *Proceedings of the 37th IEEE International Conference on Computer Communications (INFOCOM'18)*, Honolulu, HI, USA, April 15-19, 2018, pp.1520-1528. Acceptance Rate: 19.2% (309 out of 1,606)

31. **Zhen Ling**, Kaizheng Liu, Yiling Xu, Yier Jin, Xinwen Fu, 'An End-to-End View of IoT Security and Privacy', in *Proceedings of the 60th IEEE Global Communications Conference (Globecom'17)*, Singapore, December 4-8, 2017.

32. **Zhen Ling**, Melanie Borgeest, Chuta Sano, Sirong Lin, Mogahid Fadl, Wei Yu, Xinwen Fu, Wei Zhao, 'A Case Study of Usable Security: Usability Testing of Android Privacy Enhancing Keyboard', in *Proceedings of the 12th International Conference on Wireless Algorithms, Systems, and Applications (WASA'17)*, Guilin, China, June 19-21, 2017, pp. 716-728.

33. Yaowen Liu, Ming Yang, **Zhen Ling**, Junzhou Luo, 'Implicit Authentication for Mobile Device based on 3D Magnetic Finger Motion Pattern', in *Proceedings of the 21st IEEE International Conference on Computer Supported Cooperative Work in Design (CSCWD'17)*, Wellington, New Zealand, April 26-28, 2017, pp.325-330.

34. Zhenyu Ni, Ming Yang, **Zhen Ling**, Jia-nan Wu, Junzhou Luo, 'Real-time Detection of Malicious Behavior in Android Apps', in *Proceedings of the 4th International Conference on Advanced Cloud and Big Data (CBD'16)*, Chengdu, China, August 13-16, 2016, pp. 221-227.

35. **Zhen Ling**, Junzhou Luo, Qi Chen, Qinggang Yue, Ming Yang, Wei Yu, Xinwen Fu, 'Secure Fingertip Mouse for Mobile Devices', in *Proceedings of the 35th IEEE International Conference on Computer Communications (INFOCOM'16)*, San Francisco, CA, USA, April 10-15, 2016, pp. 343-351. Acceptance Rate: 18.25% (300 out of 1644)

36. Xiaodan Gu, Ming Yang, Jiaxuan Fei, **Zhen Ling**, Junzhou Luo, 'A Novel Behavior-based Tracking Attack For User identification', in *Proceedings of the 3rd International Conference on Advanced Cloud and Big Data (CBD'15)*, Yangzhou, China, October 30-November 1, 2015, pp. 227-233.

37. Qinggang Yue, **Zhen Ling**, Wei Yu, Benyuan Liu, Xinwen Fu, 'Blind Recognition of Text Input on Mobile Devices via Natural Language Processing', in *Proceedings of the 2015 Workshop on Privacy-Aware Mobile Computing (PAMCO'15)*, Hangzhou, China, June 22, 2015, pp. 19-24.

38. Qinggang Yue, **Zhen Ling**, Xinwen Fu, Benyuan Liu, Kui Ren, Wei Zhao, "Blind Recognition of Touched Keys on Mobile Devices", accepted to appear in *Proceedings of the 21th ACM Conference on Computer and Communications Security* (*CCS'14*), Arizona, USA, November 3-7, 2014. Acceptance Rate: 19.5% (114 out of 585)

39. **Zhen Ling**, Junzhou Luo, Kui Wu, Wei Yu, Xinwen Fu, "Torward: Discovery of Malicious Traffic over Tor", in *Proceedings of the 33th IEEE International Conference on Computer Communications (INFOCOM'14)*, Toronto, Canada, April 27-May 2, 2014, pp.1402-1410. Acceptance Rate: 19.4% (320 out of 1645)

40. Joshua Kraunelis, Yinjie Chen, **Zhen Ling**, Xinwen Fu, Wei Zhao "On Malware Leveraging the Android Accessibility Framework", in ***Proceedings of the 10th International Conference on Mobile and Ubiquitous System: Computing , Networking and Services (MobiQuitous'13)***, Tokyo, Japan, December 2-4, 2013.

41. **Zhen Ling**, Junzhou Luo, Kui Wu, Xinwen Fu, "Protocol-level Hidden Server Discovery", in ***Proceedings of the 32th IEEE International Conference on Computer Communications (INFOCOM'13)***, Turin, Italy, April 14-19, 2013, pp.1067-1075. Acceptance Rate: 17% (280 out of 1613)

42. Yang Zhang, Peng Xia, Junzhou Luo, **Zhen Ling**, Benyuan Liu, Xinwen Fu, "Fingerprint Attack against Touch-enabled Devices", in ***Proceedings of the 2nd Workshop on Security and Privacy in Smartphones and Mobile Devices (SPSM) conjunction with the 19th ACM Conference on Computer and Communications Security (CCS'12)***, Raleigh, NC, USA, October 16-18, 2012, pp.57-68.

43. Junwei Huang, Yinjie Chen, **Zhen Ling**, Kyungseok Choo, Xinwen Fu, "A Framework of Network Forensics and its Application of Locating Suspects in Wireless Crime Scene Investigation", in ***Proceedings of the 7th International Workshop on Systematic Approaches to Digital Forensic Engineering (SADFE'12)***, Vancouver, Canada, September 28, 2012.

44. Junwei Huang, **Zhen Ling**, Tao Xiang, Jie Wang, Xinwen Fu, "When Digital Forensics Research Meets Laws", in ***Proceedings of Workshop on Network Forensics, Security and Privacy (NSFP) conjunction with the 32th International Conference on Distributed Computing System (ICDCS'12)***, Macau, China, June 18-21, 2012, pp.542-551.

45. **Zhen Ling**, Junzhou Luo, Yang Zhang, Ming Yang, Xinwen Fu, Wei Yu, "A Novel Network Delay based Side-Channel Attack: Modeling and Defense", in ***Proceedings of the 31th IEEE International Conference on Computer Communications (INFOCOM'12)***, Orlando, Florida, USA, March 25-30, 2012, pp.2390-2398. Acceptance Rate: 18% (278 out of 1547)

46. **Zhen Ling**, Junzhou Luo, Wei Yu, Ming Yang, Xinwen Fu, "Extensive Analysis and Large-Scale Empirical Evaluation of Tor Bridge Discovery", in ***Proceedings of the 31th IEEE International Conference on Computer Communications (INFOCOM'12)***, Orlando, Florida, USA, March 25-30, 2012, pp.2381-2389. Acceptance Rate: 18% (278 out of 1547)

47. **Zhen Ling**, Junzhou Luo, Wei Yu, Xinwen Fu, "Equal-sized Cells Mean Equal-sized Packets in Tor?", in ***Proceedings of IEEE International Conference on Communication - Communication and Information System Security Symposium (ICC'11)***, Kyoto, Japan, June 5-9, 2011.

48. **Zhen Ling,** Xinwen Fu, Weijia Jia, Wei Yu, Dong Xuan, "A Novel Packet Size Based Covert Channel Attack against Anonymizer", In ***Proceedings of the 30th IEEE International Conference on Computer Communications (INFOCOM'11) Mini-Conference***, Shanghai, China, April 10-15, 2011, pp.186-190. Acceptance Rate: 23.42% (291+136 out of 1823)

49. Xinwen Fu, **Zhen Ling**, Wei Yu, Junzhou Luo, "Cyber Crime Scene (C^2SI) through Cloud Computing", In ***Proceedings of Workshop on Security and Privacy in Cloud***

Computing (SPCC) conjunction with the 30th International Conference on Distributed Computing System (ICDCS'10), Genoa, Italy, June 21-25, 2010, pp. 26-31.

50. **Zhen Ling**, Junzhou Luo, Wei Yu, Xinwen Fu, Dong Xuan, Weijia Jia, "A New Cell Counter Based Attack Against Tor", In *Proceedings of the 16th ACM Conference on Computer and Communications Security (CCS'09)*, Chicago, Illinois, USA, November 9-13, 2009, pp.578-589, Acceptance Rate: 18.4% (58 out of 315)

51. Weijia Jia, Posco Tso, **Zhen Ling**, Xinwen Fu, Dong Xuan, Wei Yu, "Blind Detection of Spread Spectrum Flow Watermarks", In *Proceedings of the 28th Conference on Computer Communications (INFOCOM'09)*, Rio de Janeiro, Brazil, April 19-25, 2009, pp.2195-2203. Acceptance Rate: 19.7% (282 out of 1435)

52. Xiaogang Wang, Junzhou Luo, Ming Yang, **Zhen Ling**, "A Novel Flow Multiplication Attack against Tor", In *Proceedings of the 13th International Conference on Computer Supported Cooperative Work in Design (CSCWD'09)*, Santiago, Chile, April 22-24, 2009, pp.686-691.

53. **Zhen Ling**, Junzhou Luo, Ming Yang, "An HMM Approach to Anonymity Analysis of Continuous Mixes", In *Proceedings of Asia-Pacific Web Conference (APWeb) 2008 Workshops*, LNCS 4977, 2008, pp.232–243.

54. **Zhen Ling**, Junzhou Luo, Ming Yang, "An Evidence Theory Based Anonymity Metrics", In *Proceedings of IEEE International Conference on Ubi-Media Computing*, Lanzhou, China, July 31- August 1, 2008, pp.82-87.

Refereed Journal Publications

1. Gui Xiao, Zhen Ling, Qunqun Fan, Xiangyu Xu, Wenjia Wu, Ding Ding, Chen Chen, Xinwen Fu, "Pivot: Panoramic-image-based VR User Authentication against Side-Channel Attacks', accepted to appear in *ACM Transactions on Multimedia Computing, Communications, and Applications (TOMM)*, Auguest 2024.

2. Juwei Guan, Xiaolin Fang, Tongxin Zhu, Zhipeng Cai, Zhen Ling, Ming Yang, Junzhou Luo, 'IdeNet: Making Neural Network Identify Camouflaged Objects Like Creatures', accepted to appear in *IEEE Transactions on Image Processing (TIP)*, Auguest 2024.

3. Feng Shan, Junzhou Luo, Qiao Jin, Liwen Cao, Weiwei Wu, Zhen Ling, Fang Dong, 'Optimal Harvest-then-Transmit Scheduling for Throughput Maximization in Time-varying RF Powered Systems', accepted to appear in *IEEE Journal on Selected Areas in Communications (JSAC)*, May 2024.

4. Xiaolin Gu, Wenjia Wu, Aibo Song, Ming Yang, Zhen Ling, Junzhou Luo, 'RF-TESI: Radio Frequency Fingerprint-based Smartphone Identification under Temperature Variation', in *ACM Transactions on Sensor Networks (TOSN)*, January 2024.

5. Xiaolin Gu, Wenjia Wu, Yusen Zhou, Aibo Song, Ming Yang, **Zhen Ling**, Junzhou Luo, 'TEA-RFFI: Temperature adjusted radio frequency fingerprint-based smartphone identification', in *Elsevier Journal of Computer Networks (COMNET)*, January 2024.

6. XiaoDan Gu, Ming Yang, Bingchen Song, Wei Lan,Zhen Ling, 'A practical multi-tab website fingerprinting attack', in *Journal of Information Security and Applications (JISA)*, December 2023.

7. Xiaoheng Deng, Jincai Zhu, Xinjun Pei, Lan Zhang, **Zhen Ling**, Kaiping Xue, 'Flow Topology-based Graph Convolutional Network for Intrusion Detection in Label-Limited

IoT Networks', in ***IEEE Transactions on Network and Service Management (TNSM)***, 20(1): 684 - 696, March 2023.

8. Lan Luo, Xinhui Shao, **Zhen Ling**, Huaiyu Yan, Yumeng Wei, Xinwen Fu, 'fASLR: Function-Based ASLR via TrustZone-M and MPU for Resource-Constrained IoT Systems', in ***IEEE Internet of Things Journal (IoT-J)***, September 2022.

9. Wenjia Wu, Yujing Liu, Jiazhi Yao, Xiaolin Fang, Feng Shan, Ming Yang, **Zhen Ling**, Junzhou Luo, 'Learning-aided Client Association Control for High-density WLANs', in ***Elsevier Journal of Computer Networks (COMNET)***, July 2022.

10. Lan Luo, Yue Zhang, Clayton White, Brandon Keating, Bryan Pearson, Xinhui Shao, **Zhen Ling**, Haofei Yu, Cliff Zou, Xinwen Fu, 'On Security of TrustZone-M Based IoT Systems', in ***IEEE Internet of Things Journal (IoT-J)***, 9(12): 9683 - 9699, June 2022.

11. **Zhen Ling**, Huaiyu Yan, Xinhui Shao, Junzhou Luo, Yiling Xu, Bryan Pearson, Xinwen Fu, 'Secure Boot, Trusted Boot and Remote Attestation for ARM TrustZone-based IoT Nodes', in ***Journal of Systems Architecture (JSA)***, 119, October 2021.

12. Kaizheng Liu, Ming Yang, **Zhen Ling**, Huaiyu Yan, Yue Zhang, Xinwen Fu, Wei Zhao, 'On Manually Reverse Engineering Communication Protocols of Linux Based IoT Systems', accepted to appear in ***IEEE Internet of Things Journal (IoT-J)***, 2020.

13. **Zhen Ling**, Chao Gao, Chuta Sano, Chukpozohn Toe, Zupei Li, Xinwen Fu, 'STIR: A Smart and Trustworthy IoT System Interconnecting Legacy IR Devices', in ***IEEE Internet of Things Journal (IoT-J)***, 7(5):3958-3967, May 2020.

14. Yiting Zhang, Ming Yang, **Zhen Ling**, Yaowen Liu, Wenjia Wu, 'FingerAuth: 3D magnetic finger motion pattern based implicit authentication for mobile devices', in ***Future Generation Computer System (FGCS)***, 108:1324-1337, July 2020.

15. Naixuan Guo, Junzhou Luo, **Zhen Ling**, Ming Yang, Wenjia Wu, Xinwen Fu, 'Your Clicks Reveal Your Secrets: A Novel User-device Linking Method Through Network and Visual Data', in ***Multimedia Tools and Applications (MTA)***, 78(7):8337-8362, 2019.

16. Junzhou Luo, Ming Yang, **Zhen Ling**, Wenjia Wu, Xiaodan Gu, 'Anonymous Communication and Darknet: A Survey', in ***Journal of Computer Research and Development***, 2019, 56(1): 103-130.

17. Lan Luo, Yue Zhang, Bryan Pearson, **Zhen Ling**, Haofei Yu, Xinwen Fu, 'On the Security and Data Integrity of Low-cost Sensor Networks for Air Quality Monitoring', in ***Sensors***, 18(12):4451, November 2018.

18. Xiaodan Gu, Ming Yang, Yiting Zhang, Peilong Pan, **Zhen Ling**, 'Fingerprinting Network Entities Based on Traffic Analysis in High-speed Network Environment', in ***Security and Communication Networks (SCN)***, November 2018.

19. Kai Dong, Taolin Guo, Haibo Ye, Xuansong Li, **Zhen Ling**, 'On the Limitations of Existing Notions of Location Privacy', in ***Future Generation Computer System (FGCS)***, 86:1513-1522, September 2018.

20. Wenjia Wu, Junzhou Luo, Kai Dong, Ming Yang, **Zhen Ling**, 'Energy-Efficient User Association with Congestion Avoidance and Migration Constraint in Green WLANs', in ***Wireless Communications and Mobile Computing (WCMC)***, 2018.

21. **Zhen Ling**, Junzhou Luo, Yiling Xu, Chao Gao, Kui Wu, Xinwen Fu, 'Security Vulnerabilities of Internet of Things: A Case Study of the Smart Plug System', in ***IEEE Internet of Things Journal (IoT-J)***, 4(6):1899-1909, December 2017.

22. Ming Yang, Xiaodan Gu, **Zhen Ling**, Changxin Yin, Junzhou Luo, 'An Active De-anonymizing Attack against Tor Web Traffic', in *Tsinghua Science and Technology*, 22(6): 702-713, December 2017.

23. **Zhen Ling**, Melanie Borgeest, Chuta Sano, Jazmyn Fuller, Anthony Cuomo, Sirong Lin, Wei Yu, Xinwen Fu, and Wei Zhao, 'Privacy Enhancing Keyboard (PEK): Design, Implementation and Usability Testing', in *Wireless Communications and Mobile Computing (WCMC)*, November 2017.

24. Ming Yang, Shan Wang, **Zhen Ling**, Yaowen Liu, Zhenyu Ni, 'Detection of Malicious Behavior in Android Apps through API Calls and Permission Uses Analysis', in *Concurrency and Computation: Practice and Experience (CCPE)*, 29(19):e4172, October 2017.

25. Kai Dong, **Zhen Ling**, Xiangyu Xia, Haibo Ye, Wenjia Wu, Ming Yang, 'Dealing with Insufficient Location Fingerprints in Wi-Fi Based Indoor Location Fingerprinting', in *Wireless Communications and Mobile Computing (WCMC)*, August 2017.

26. Kai Dong, Wenjia Wu, Haibo Ye, Ming Yang, **Zhen Ling**, Wei Yu, 'Canoe: An Autonomous Infrastructure-Free Indoor Navigation System', in *Sensors*, 17(5):996, April 2017.

27. Guoming Tang, **Zhen Ling**, Fengyong Li, Daquan Tang, Jiuyang Tang, 'Occupancy-aided Energy Disaggregation', in Elsevier Journal of *Computer Networks* (COMNET), 117:42-51, April 2017.

28. Xiaodan Gu, Ming Yang, Congcong Shi, **Zhen Ling**, Junzhou Luo, 'A Novel Attack to Track Users Based on the Behavior Patterns', in *Concurrency and Computation: Practice and Experience (CCPE)*, 29(6):e3891, March 2017.

29. Yifei Lu, **Zhen Ling**, Shuhong Zhu, Ling Tang, 'SDTCP: Towards Datacenter TCP Congestion Control with SDN for IoT Applications', in *Sensors*, 17(1):109, January 2017.

30. Wenjia Wu, Jianan Wu, Yanhao Wang, **Zhen Ling**, Ming Yang, 'Efficient Fingerprinting-based Android Device Identification with Zero-permission Identifiers', in *IEEE Access*, 4:8073-8083, November 2016.

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35. Joshua Kraunelis, Yinjie Chen, **Zhen Ling**, Xinwen Fu, Wei Zhao, "On Malware Leveraging the Android Accessibility Framework", accepted to appear in *EAI Endorsed Transactions on Ubiquitous Environments*, February 2015.

36. Ming Yang, Junzhou Luo, **Zhen Ling**, Xinwen Fu, Wei Yu, "De-anonymizing and Countermeasures in Anonymous Communication Networks", in *IEEE Communications Magazine (COMMAG)*, 53(4):60-66, April 2015.

37. **Zhen Ling**, Junzhou Luo, Wei Yu, Ming Yang, Xinwen Fu, "Extensive Analysis and Large-Scale Empirical Evaluation of Tor Bridge Discovery", in *IEEE Transactions on Parallel and Distributed Systems (TPDS)*, 26(7): 1887-1899, July 2015.

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2. Xian Pan, **Zhen Ling**, Aniket Pingley, Wei Yu, Kui Ren Nan Zhang, Xinwen Fu, Short Talk: "How Privacy Leaks from Bluetooth Mouse?", in *Proceedings of the 20th ISOC Network and Distributed System Security Symposium (NDSS'13)*, *San Diego, CA, USA, February 24-27, 2013*.

3. Xian Pan, **Zhen Ling**, Aniket Pingley, Wei Yu, Nan Zhang, Xinwen Fu, "DEMO: How Privacy Leaks from Bluetooth Mouse?", in *Proceedings of the 19th ACM Conference on Computer and Communications Security (CCS'12)*, *Raleigh, NC, USA, pp.1013-1015, October 16-18, 2012*.

4. Xinwen Fu, **Zhen Ling**, "One Cell is enough to Break Tor's Anonymity", White Paper, *Black Hat DC*, February 18-19, 2009.

PROFESSIONAL ACTIVITES

Professional Association Participation:

1. 2024 – present, Secretary of ACM SIGSAC China
2. 2020 – 2023, Vice Chair of ACM SIGSAC China
3. 2009 – present, Member of Institute of Electrical and Electronics Engineers (IEEE)
4. 2019 – present, Member of Association for Computing Machinery (ACM)

Chair of Conference Technical Program Committee

1. TPC Chair, The 19th International Conference on Mobility, Sensing and Networking (MSN), 2023
2. Program Co-Chair, The SIGSAC China Symposium, 2023
3. Security and Blockchain Track Chair, The 27th IEEE International Conference on Parallel and Distributed Systems (ICPADS), 2021
4. Workshops Chair, The 10th EAI Intelligent Mobility and Edge Computing for a Smarter World (MONAMI), 2020
5. Publicity and Social Media Chair, The 15th EAI International Conference on Security and Privacy in Communication Networks (SecureComm), 2019
6. Program Co-Chair, The 3rd SIGSAC China Symposium, 2019
7. Publicity Co-Chair, The 37th IEEE International Performance Computing and Communications Conference (IPCCC), 2018
8. TPC Track Chair, The 9th International Symposium on Cyberspace Safety and Security (CSS), 2017

Technical Program Committee Member:

1. ACM Conference on Computer and Communications Security (CCS), 2024
2. USENIX Security Symposium (Security), 2024, 2025
3. IEEE International Conference on Computer Communications (INFOCOM), 2016, 2017, 2021, 2022, 2023, 2024, 2025
4. International Performance Computing and Communications Conference (IPCCC), 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024
5. IEEE International Conference on Mobile Ad-Hoc and Smart Systems (MASS), 2022, 2023, 2024
6. IEEE Global Communications Conference (GlobeCom), 2019, 2020, 2021, 2022, 2023, 2024
7. IEEE International Conference on Communications (ICC), 2019, 2020
8. IEEE Conference on Communications and Network Security (CNS), 2020 , 2021, 2022, 2023, 2024
9. International Conference on Computer Communication and Networks (ICCCN), 2015, 2018, 2019, 2020, 2021, 2022, 2023, 2024
10. IEEE International Conference on Parallel and Distributed Systems (ICPADS), 2020
11. International Conference on Wireless Algorithms, Systems, and Applications (WASA), 2016, 2017, 2021, 2022
12. International Conference on Algorithms and Architectures for Parallel Processing (ICA3PP), 2015, 2016, 2017
13. The ACM Turing 50th Celebration Conference - China (ACM TURC), 2017

14. The annual International Conference on Distributed Computing in Sensor Systems (DCOSS), 2016
15. IEEE International Conference on High Performance and Communications (HPCC), 2015, 2016
16. International Conference on Computing, Networking and Communications (ICNC), 2014, 2015, 2016, 2017, 2018, 2019, 2020
17. International Telecommunication Networks and Applications Conference (ITNAC), 2014, 2015, 2016, 2017, 2018, 2019
18. IEEE International Conference on Big Data Computing Service and Applications (BigDataService), 2015, 2016, 2017
19. IEEE International Conference on Ubiquitous Intelligence and Computing (UIC), 2018
20. International Workshop on Security and Privacy in Big Data (BigSecurity), 2014, 2015, 2016
21. International Workshop on Information Security Application (WISA), 2013, 2014, 2015, 2016
22. IEEE/CIC International Conference on Communications in China (ICCC), 2015
23. ACM MobiHoc Workshop on Privacy-Aware Mobile Computing (PAMCO), 2015
24. International Conference on Communications and Networking in China (ChinaCom), 2014
25. IEEE Consumer Communications and Networking Conference (CCNC), 2013

Reviewer:

1. IEEE/ACM Transactions on Networking (ToN)
2. IEEE Transactions on Dependable and Secure Computing (TDSC)
3. ACM Transactions on Privacy and Security (TOPS) (Formerly TISSEC)
4. IEEE Transactions on Information Forensics and Security (TIFS)
5. IEEE Transactions on Mobile Computing (TMC)
6. IEEE Transactions on Parallel and Distributed Systems (TPDS)
7. IEEE Transactions on Computers (TC)
8. IEEE Transactions on Vehicular Technology (TVT)
9. IEEE Transactions on Wireless Communications (TWC)
10. ACM Computing Surveys
11. Computer Networks (COMNET)
12. Journal of Parallel and Distributed Computing (JPDC)
13. IEEE Internet of Things Journal (IoTJ)
14. IEEE Transactions on Emerging Topics in Computational Intelligence (TETCI)
15. ACM Transactions of Internet Technology (TOIT)
16. Transactions on Network Science and Engineering (TNSE)
17. Journal of Network and Computer Applications (JNCA)
18. Future Generation Computer Systems (FGCS)
19. IET Information Security
20. Security and Communication Networks (SCN)
21. Peer-to-Peer Networking and Applications (PPNA)
22. Computer Communications (COMCOM)

23. IEEE Wireless Communications Magazine (WCM)
24. IEEE Wireless Communications Letters (WCL)
25. IEEE Network Magazine
26. Journal of Information Security and Applications (JISA)
27. International Journal of Security and Networks (IJSN)
28. International Journal of Distributed Sensor Networks (IJDSN)
29. Journal of Computational Science
30. IEEE Access
31. IEICE Transactions on Information and Systems
32. Frontiers of Computer Science
33. ACM MobiCom (2018)
34. IEEE ICC (2009, 2010, 2011, 2012, 2013, 2018)
35. IEEE CNS (2012, 2016, 2017, 2018)
36. ACM CODASPY (2017)
37. ACM CCS (2016)
38. IEEE MASS (2017)
39. IEEE WCNC (2017)
40. IEEE VTC (2016 Fall)
41. IEEE INFOCOM (2010, 2011, 2012, 2013, 2014, 2015)
42. IEEE CCNC (2014)
43. IEEE GlobeCom (2011, 2012, 2014)
44. PETS (2013)
45. IEEE SecureComm (2011)
46. IEEE ICDCS-SPCC (2012)
47. DFRWS (2012)

TEACHING

1. Fall 2024, Binary Code Analysis, undergraduate
2. Spring 2024, Introduction to Computer Systems, undergraduate
3. Spring 2024, Computer Network Security, graduate
4. Fall 2023, Binary Code Analysis, undergraduate
5. Spring 2023, Introduction to Computer Systems, undergraduate
6. Spring 2022, Computer Network Security, graduate
7. Fall 2022, Java Program Design, undergraduate
8. Fall 2022, Binary Code Analysis, undergraduate
9. Spring 2022, Computer Network Security, graduate
10. Fall 2021, Java Program Design, undergraduate
11. Fall 2021, Binary Code Analysis, undergraduate
12. Fall 2020, Java Program Design, undergraduate
13. Fall 2020, Binary Code Analysis, undergraduate
14. Fall 2019, Object-oriented Programming II – Java, undergraduate
15. Fall 2019, Binary Code Analysis, undergraduate
16. Fall 2018, Object-oriented Programming II – Java, undergraduate

17. **Fall 2017**, Object-oriented Programming II – Java, undergraduate
18. **Fall 2016**, Object-oriented Programming II – Java, undergraduate
19. **Fall 2015**, Object-oriented Programming II – Java, undergraduate