
Yuhong Liu

Ph.D

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Education

Ph.D., University of Rhode Island, USA	08/2012
Major: Computer Engineering	Advisor: Dr. Yan (Lindsay) Sun
M.S. Beijing University of Posts and Telecommunications (BUPT), P.R. China	04/2007
Major: Signal and Information Processing	
B.S. Beijing University of Posts and Telecommunications (BUPT), P.R. China	08/2004
Major: Information Engineering	

Research Expertise

Trustworthy computing, Privacy and Cyber security for emerging technologies, including Trustworthy AI, Internet-of-Things, Online Social Media and Blockchain.

Professional Appointments

Associate Professor , Santa Clara University, CA, USA	09/2020~ present
Assistant Professor , Santa Clara University, CA, USA	09/2015 ~ 06/2020
Assistant Professor , Penn State University - Altoona, USA	08/2013 ~ 06/2015
Research Postdoc , University of Rhode Island, USA	09/2012 ~ 07/2013

Awards and Honors

2025	IEEE Computer Society Distinguished Contributor
2023	Rising Star Service Award, IEEE CS Technical & Conference Activities Board
2022~2024	IEEE Computer Society Distinguished Visitor
2021~2022	APSIPA Distinguish Lecturer
04/2019	Researcher of the Year Award at School of Engineering, Santa Clara University
2015~2017	The Packard Junior Faculty Fellowship at Santa Clara University
08/2016	Best paper award at the 9th International Conference on Ubi-Media Computing
04/2013	URI Graduate School Excellence in Doctoral Research Award 2013
08/2010	Best paper award at IEEE International Conference on Social Computing 2010

Awarded Funding

(Total External grant: \$1,175,184; Total Internal grant: \$43,010)

1. “Leveraging the Programmability of Broadcom Switching ASICs to Enhance Application-Aware Packet Switching”, Broadcom, \$345,000 (Co-PI, 01/2026 – 12/2028)
2. “Privacy-preserving synthetic data generation and evaluation”, eBay, \$100,000 (PI, 04/2025-03/2026)
3. “Effect of Distributed Energy Resources on Fairness of Utility Rate for Grid Interactive Residential Buildings”, NIST, \$68,198 (Sub-awardee, 03/2024-02/2025)
4. “Global Centers Track 2: Equitable and User-Centric Energy Market for Resilient Grid-interactive Communities”, NSF, \$249,987 (PI, 01/2024-12/2025)

5. "Fair and Resilient Control of Energy Systems in Grid-Interactive Buildings Under Skewed and Faulty Communication", NIST, \$150,000 (Co-PI, 2022-2024)
6. "Build a Chinese Language Disinformation and Misinformation Repository For the US Ecosystem", Knight foundation, \$137,000 (PI, 2022-2023)
7. "A Blockchain-Facilitated Packetized Energy Trading Market", IEEE Blockchain for Transactive Energy, \$10,000 (PI, 2022-2023)
8. "Co-simulation of Residential Buildings Energy Control Systems under Transactive Energy Approaches", NIST, \$74,999 (Co-PI, 2021-2022)
9. "The impact of emoji on misinformation propagation in online social media", Clare Boothe Luce Scholar Award for Undergraduate Scholarship, Santa Clara University, \$12,000 (Faculty advisor, 2022 - 2024)
10. "Fairness Framework for Energy Management of Grid-Interactive Buildings", Santa Clara University, Sustainability grant, \$7,500 (PI, 2022-2023)
11. "Verification of Human Behavior Sensing Model for Residential Building Energy Saving via Co-simulation Platform", NIST, \$40,000 (Co-PI, 2019-2020)
12. "Securing Multi-tenant Cloud Computing through Trust Management", Santa Clara University, School of Engineering Research Grant, \$23,510 (2016-2017)

Publications

◆ **Journal**

1. Zeng, Yulin, Yi Fang, Yuhong Liu, and Hohyun Lee. "Integrating Sociodemographics Into Trip Chain Models for Residential Electric Vehicle Charging Schedule Simulation With Large Language Models." *ASME Journal of Engineering for Sustainable Buildings and Cities*, 6, no. 3 (2025): 031003.
2. Hou, Luyang, Yuanliang Li, Jun Yan, Yuhong Liu, Mohsen Ghafour, Li Wang, and Peng Zhang. "A novel iterative double auction design and simulation platform for packetized energy trading of prosumers in a residential microgrid." *Energy Conversion and Economics* (2024), IF: 3.1
3. Zigang Chen, Fan Liu, Danlong Li, Haihua Zhu, Yuhong Liu, Xingchun Yang, "Blockchain-based Solution for Secure Management and Access Control of Video Data in Logistics Warehouses", *Cluster Computing*, IF: 3.6
4. Chen, Zigang, Zhen Wang, Yuening Zhou, Fan Liu, Yuhong Liu, Tao Leng, and Haihua Zhu. "A method for recovering adversarial samples with both adversarial attack forensics and recognition accuracy." *Computers & Security* (2024): 103987.
5. Zhang, Peng, Peilin Wu, Yuhong Liu, Ye Chen, Yuanliang Li, Jun Yan, and Mohsen Ghafouri. "Toward a Blockchain-Based, Reputation-Aware Secure Transactive Energy Market." *Blockchains* 2, no. 1 (2024): 61-78.
6. Zhang, Shufang, Minxue Ni, Shuai Chen, Lei Wang, Wenxin Ding, and **Yuhong Liu**. "A two-stage personalized virtual try-on framework with shape control and texture guidance." *IEEE Transactions on Multimedia* (2024).
7. Jin, Zhigang, Renjun Su, **Yuhong Liu**, and Chenxu Duan. "A psychological evaluation method incorporating noisy label correction mechanism." *Soft Computing* (2024): 1-13 (Impact Factor: 4.1).
8. Chen, Zigang, Qinyu Mu, Wenjun Luo, Xingchun Yang, Danlong Li, Xin Shao, **Yuhong Liu**, and Haihua Zhu. "Digital Forensics for Automotive Intelligent Networked Terminal Devices." *IEEE Transactions on Vehicular Technology* (2023) (Impact Factor: 6.8).

9. Covington Hannah, Woo-Shem Brian, Wang Chenli, Nguyen Cuong, Roth Thomas, **Liu Yuhong**, Fang Yi, Lee Hohyun, "Method for Evaluating Fairness of Electricity Tariffs with Regard to Income Level of Residential Buildings", *Applied Energy*, 353 (2024): 122130 (Impact Factor: 11.2).
10. Wei Wu, Haipeng Peng, Liting Wen, **Yuhong Liu**, Fenghua Tong, Lixiang Li, "A Secure and Efficient Data Transmission Method with Multi-level Concealment Function Based on Chaotic Compressive Sensing", *IEEE Sensors Journal*, 10.1109/JSEN.2023.3297123 (Impact Factor: 4.325)
11. Gabriel Solomon, Peng Zhang, Rachael Brooks, **Yuhong Liu**, "A Secure and Cost-efficient Blockchain Facilitated IoT Software Update Framework", *IEEE Access*, 2023 (Impact Factor: 3.9).
12. Woo-Shem, Brian, Kaleb Pattawi, Hannah Covington, Patrick McCurdy, Chenli Wang, Thomas Roth, Cuong Nguyen, **Yuhong Liu**, and Hohyun Lee "Comparing Economic Benefits of a Novel HVAC Control Strategy Strategies in Grid-Interactive Residential Buildings", *Energy & Buildings*, 2023, available at SSRN 4282553.
13. Zhang, Shufang, Yanran Liu, Jiang Liu, and **Yuhong Liu**. "Multi-View High Precise 3D human Body Reconstruction Method for Virtual Fitting." *International Journal of Pattern Recognition and Artificial Intelligence* (2023): 2256023.
14. Zigang Chen, Zhiquan Cheng, Wenjun Luo, Jin Ao, **Yuhong Liu**, Kai Sheng, Long Chen, "FSMFA: Efficient Firmware-Secure Multi-Factor Authentication protocol for IoT devices", *Internet of Things*, Elsevier, 2023, 21, p.100685.
15. Cao, Lu, Ruiwen Li, Xiaojun Ruan, and **Yuhong Liu**. "Defending against Co-residence Attack in Energy-Efficient Cloud: An Optimization based Real-time Secure VM Allocation Strategy." *IEEE Access*, Vol. 10, pp. 98549-98561, 2022 (Impact Factor: 3.9).
16. Brooks, Rachael, Yefeng Yuan, **Yuhong Liu**, and Haiquan Chen. "DeepFake and its Enabling Techniques: A Review." *APSIPA Transactions on Signal and Information Processing* 11, no. 2 (2022) (Impact Factor: 3.2).
17. Barni, Mauro, Yi Fang, **Yuhong Liu**, Laura Robinson, Kazutoshi Sasahara, Subramaniam Vincent, Xinchao Wang, and Zhizheng Wu. "Combating Misinformation/Disinformation in Online Social Media: A Multidisciplinary View." *APSIPA Transactions on Signal and Information Processing* 11, no. 2 (2022) (Impact Factor: 3.2).
18. Zigang Chen, Jin Ao, Wenjun Luo, Zhiquan Cheng, Yuhong Liu, Kai Shenge, Long Chena, "A dual-factor access authentication scheme for IoT terminal in 5G environments with network slice selection", *Journal of Information Security and Applications* 68 (2022): 103247 (IF:3.872), Elsevier.
19. Nofal, Ramzi A., Nam Tran, Behnam Dezfouli, and **Yuhong Liu**. "A Framework for Managing Device Association and Offloading the Transport Layer's Security Overhead of WiFi Device to Access Points." *Sensors* 21, no. 19 (2021): 6433 (Impact Factor: 3.576).
20. Mingdi Hu, Jingbing Yang, Nam Ling, **Yuhong Liu**, Jiulun Fan, "Lightweight single image deraining algorithm incorporating visual saliency", *IET Image Processing* (IF:2.20), 2022
21. Xiaofang Zhao, Zhigang Jin*, **Yuhong Liu***, Yi Hu, "Heterogeneous Information Network Embedding for User Behavior Analysis on Social Media", *Neural Computing and Applications*, 1-17, 2022 (IF:4.774)
22. Xiaofang Zhao, **Yuhong Liu**, Zhigang Jin, "Multiplex Network Embedding for Implicit Sentiment Analysis", *Complex & Intelligent Systems* 7(6), 3179-3193, 2021 (Impact Factor: 5.8)
23. Shufang Zhang, Jianjun Wu, Tao Zhang, **Yuhong Liu**, "HD-Code: End-to-End High Density Code for DNA Storage", *IEEE Transactions on NanoBioscience*, 10.1109/TNB.2021.3102122.

24. Shufang Zhang, Qinyu Wang, Tong Zhu, **Yuhong Liu**, "Detection and Classification of Small Traffic Signs Based on Cascade Network", *Chinese Journal of Electronics* 30, no. 4 (2021): 719-726.
25. Shufang Zhang, Jianjun Wu, **Yuhong Liu**, "High Density Information Storage and Random Access Scheme using Synthetic DNA", *3 Biotech*, 11, no. 7 (2021): 1-10.
26. Jun Jiang, Chenli Wang, Hohyun Lee, Thomas Roth, Cuong Nguyen, Patrick Kamongi, **Yuhong Liu**, "Residential House Occupancy Detection: Trust based Scheme Using Economic and Privacy-aware Sensors" *IEEE Internet of Things Journal*, 2021 (IF:11.705)
27. Shufang Zhanga, Jiang Liu, **Yuhong Liu**, Nam Ling, "DIMNet: Dense Implicit Function Network for 3D Human Body Reconstruction", *Computers & Graphics*, vol. 98, pp. 1 -10, August 2021, Elsevier. (IF: 1.351)
28. Shaojie Yang, Shanxi Li, Wenbo Chen, **Yuhong Liu**, "A Real-Time and Adaptive-Learning Malware Detection Method Based on API-Pair Graph", *IEEE Access*, 2020. (IF: 3.745)
29. Xiao Yue, Peng Zhang, **Yuhong Liu**, "Secure and Efficient Multi-Signature Schemes for Fabric: An Enterprise Blockchain Platform", *IEEE Transactions on Information Forensics and Security*, 16 (2020): 1782-1794. (IF: 6.013)
30. Chenli Wang, Jun Jiang, Thomas Roth, Cuong Nguyen, **Yuhong Liu**, and Hohyun Lee. "Integrated sensor data processing for occupancy detection in residential buildings." *Energy and Buildings* 237 (2021): 110810. (IF: 4.495)
31. Zhigang Jin, Xiaofang Zhao, **Yuhong Liu**, "Heterogeneous Graph Network Embedding for Sentiment Analysis on Social Media", *Cognitive Computing*, Springer, 13, no. 1 (2021): 81-95 (IF: 4.98)
32. Bhagyashri Tushir, Yogesh Dalal, Behnam Dezfouli, **Yuhong Liu**, "A Quantitative Study of DDoS and E-DDoS Attacks on WiFi Smart Home Devices", *IEEE Internet of Things Journal*, 2020, 8, no. 8 (2020): 6282-6292. (IF: 11.705).
33. Yue Han, **Yuhong Liu**, Zhigang Jin, "Sentiment Analysis via Semi-Supervised Learning: A Model based on Dynamic Threshold and Multi-classifiers", *Neural Computing and Applications*, Springer, 2020, pp.1-13 (IF: 4.213).
34. Zhigang Jin, Yang Yang, **Yuhong Liu**, "Stock Closing Price Prediction Based on Sentiment Analysis and LSTM", *Neural Computing and Applications*, 2019:1-7. (IF: 4.213).
35. Shufang Zhang, Beibei Huang, Xiangming Song, Tao Zhang, Hanjie Wang, **Yuhong Liu**, "A high storage density strategy for digital information based on synthetic DNA", *3 Biotech*, 2019 Sep 1; 9(9):342. (IF: 1.786).
36. Zigang Chen, Lixiang Li, Haipeng Peng, **Yuhong Liu**, Haihua Zhu, Yixian Yang, "Sparse general non-negative matrix factorization based on left semi-tensor product", *IEEE Access*, 2019 Jun 20; 7:81599-611. (IF: 4.098).
37. Oleksii Rudenko, **Yuhong Liu**, Chenwei Wang, Susanto Rahardja, "An Extensive Game Based Resource Allocation for Securing D2D Underlay Communications", *IEEE Access*, 2019 Mar 18; 7:43052-62. (IF: 4.098).
38. **Yuhong Liu**, Yue Han, Kirk Iserman, Zhigang Jin, "Minimizing Required User Effort for Cold-Start Recommendation by Identifying the Most Important Latent Factors", *IEEE Access*, 2018; 6:71846-56 (IF: 4.098).
39. **Yuhong Liu**, Na Li, "Retrieving Hidden Friends: A Collusion Privacy Attack Against Online Friend Search Engine", *IEEE Transactions on Information Forensics and Security*, 2019 Apr; 14(4):833-47. (IF: 5.824)

40. Vishnu Pendyala, **Yuhong Liu**, Silvia Figueira, “A Framework for Detecting Injected Influence Attacks on Microblog Websites Using Change Detection Techniques”, *Development Engineering*, 2018, Jan 1; 3:218-33.
41. Zigang Chen, Lixiang Li, Haipeng Peng, **Yuhong Liu**, Yixian Yang, “Incremental General Non-negative Matrix Factorization without Dimension Matching Constraints”, *Neurocomputing*, Elsevier, 2018 Oct 15;311:344-52. (IF: 4.072)
42. Ziyang Zhang, **Yuhong Liu**, Zhigang Jin, Rui Zhang, “A Dynamic Trust based Two-layer Neighbor Selection Scheme towards Online Recommender Systems”, *Neurocomputing* 285, pp.94-103., 2018, Elsevier (IF: 4.072)
43. Zigang Chen, Lixiang Li, Haipeng Peng, **Yuhong Liu**, Yixian Yang, “A novel digital watermarking based on General non-negative matrix factorization”, *IEEE Transactions on Multimedia*, 2018 (IF: 5.452).
44. Zigang Chen, Lixiang Li, Haipeng Peng, **Yuhong Liu**, Yixian Yang, “Attributed community mining using joint general non-negative matrix factorization with graph Laplacian”, *Physica A: Statistical Mechanics and its Applications*, Volume 495, 1 April 2018, Pages 324-335. (IF: 2.243)
45. **Yuhong Liu**, Wenqi Zhou and Hong Chen, “Efficiently Promoting Product Online Outcome: An Iterative Rating Attack Utilizing Product and Market Property”, *IEEE Transactions on Information Forensics and Security*, vol.12, issue 6, 2017. (IF: 5.824)
46. Syed Rizvi, Jungwoo Ryoo, John Kissell, Bill Aiken, **Yuhong Liu**, "A security evaluation framework for cloud security auditing", *The Journal of Supercomputing*, 2017, 1-23. (IF: 1.326)
47. **Yuhong Liu**, Jungwoo Ryoo, Syed Rizvi, Yan (Lindsay) Sun, Thanos Vasilakos, "A Survey of Security and Privacy Challenges in Cloud Computing: Solutions and Future Research Directions", *Journal of Computing Science and Engineering (JCSE)*, Vol. 9, No. 3, pp. 119-133, September 2015.
48. Wenqi Zhou, **Yuhong Liu**, "Online Product Rating Manipulation and Market Performance", *IEEE Computer*, 48 (5), pp. 72-75, 2015. (IF: 1.755)
49. **Yuhong Liu**, Yan (Lindsay) Sun, “Securing Digital Reputation in Online Social Media”, *IEEE Signal Processing Magazine*, vol.31, no.1, pp.149,155, Jan. 2014. (IF: 9.654)
50. **Yuhong Liu**, Yan (Lindsay) Sun, Siyuan Liu, Alex C. Kot, “Securing Online Reputation Systems through Trust Modeling and Temporal Analysis”, *IEEE transactions on Information Forensics and Security*, Special Issue on Privacy and Trust Management in Cloud and Distributed Systems, vol.8, no.6, pp. 936-948, June 2013
51. Yan (Lindsay) Sun, **Yuhong Liu**, “Security of Online Reputation Systems: Evolution of Attacks and Defenses”, *Signal Processing Magazine*, Special Issue On Signal and Information Processing for Social Learning and Networking, Vol. 29, No. 2, pp. 87-97, March 2012. (IF: 9.654)
52. Xiaorong Zhang, **Yuhong Liu**, Fan Zhang, Jin Ren, Yan (Lindsay) Sun, He Huang, Qing Yang, “On Design and Implementation of Neural-Machine Interface for Artificial Legs”, *IEEE Transactions on Industrial Informatics*, Vol. 8, No. 2, pp. 418-429, May 2012. (IF: 6.764)
53. Makeyev O., Liu X., Luna-Munguía H., Rogel-Salazar G., Mucio-Ramirez S., **Liu Y.**, Sun Y., Hadidi R., Kay S., Besio W., Toward an automatic seizure control system in rats through transcranial focal stimulation via tripolar concentric ring electrodes, *Epilepsy Currents*, Vol. 12, Issues1, January/February 2012, pp. 29-30

◆ **Book Chapter**

1. **Yuhong Liu**, Yu Wang, Nam Ling, "Security, Privacy and Trust for User Generated Content: The Challenges and Solutions", in *Big Data Management and Processing*, Eds, Kuan-Ching Li, published by Taylor and Francis, 2017, ISBN: 978-1-4987-6807-8

2. **Yuhong Liu**, Ruiwen Li, Songjie Cai and Yan (Lindsay) Sun, "Security, Privacy and Trust in Cloud Computing: Challenges and Solutions", in Big Data Analytics in Cybersecurity, Eds, Onur Savas and Julia Deng, published by Taylor & Francis, 2017, ISBN: 978-1-4987-7212-9

◆ **Peer Reviewed Conference Papers:**

1. Ananya Gopal, Mridul Gupta, Jordan Le, **Yuhong Liu**, Behnam Dezfouli "DAFRA: Demand-Aware Fair Rate Allocation to Flows on Commodity Switches", IEEE/IFIP Network Operations and Management Symposium 2026 (NOMS 2026)
2. Shi, Zhan, Yefeng Yuan, Liang Cheng, and **Yuhong Liu**. "Reinforcement Learning-Guided Large Language Model Fine-Tuning for Privacy-Preserving Text Rewriting." In Proceedings of the Tenth ACM/IEEE Symposium on Edge Computing, pp. 1-7. 2025.
3. Yunge Li, **Yuhong Liu**, Lanyu Xu, "ARMBench: Benchmarking Adversarial Robustness of Multitask Perception in Autonomous Driving", The 10th Symposium on Edge Computing (SEC 2025), Dec. 3-6, 2025, Washington D.C., USA
4. Hepeng Li, **Yuhong Liu**, Jun Yan, Jie Gao, Xiaoou Yang, "Position Paper: Emergent Machina Sapiens Urge Rethinking Multi-Agent Paradigms in Critical Infrastructures", 2025 International Joint Conference on Neural Networks (IJCNN 2025), June 30 - July 5th, Rome, Italy
5. Yefeng Yuan, Yulin Zeng, Hepeng Li, Jie Gao, Xiao'ou Yang, Mohsen Ghafouri, **Yuhong Liu**, and Jun Yan, "Analyzing Agent Collisions in AI-Aided Energy Management Systems" IEEE International Conference on Communications, Control, and Computing Technologies for Smart Grids (IEEE SmartGridComm), 29 September – 2 October 2025, Toronto, Canada *
6. Yulin Zeng, Yiheng Zhao, Yuanliang Li, Yefeng Yuan, Jie Gao, Hepeng Li, Xiao'ou Yang, Hohyun Lee, **Yuhong Liu**, and Jun Yan, "Algorithmic Collusion among EV Charging Stations with Independent Reinforcement Learning Agents", IEEE SmartGridComm'25, 29 September – 2 October 2025, Toronto, Canada
7. Yulin Zeng, Yi Fang, **Yuhong Liu**, Hohyun Lee "Integrating Socio-demographics into Trip Chain Models for Residential EV Charging Schedule Simulation with LLMs", ASME 2025 Energy Sustainability (ES2025)
8. Peng Zhang, Jiaquan Wei, Yuhong Liu, Jianzhou Ruan, Hui Cui "Ensuring Fair Data Trading via Passive Proxy Re-encryption with Smart Contracts", The 18th International Conference on Provable and Practical Security (ProvSec) 2024, Gold Coast, Australia, 25-27 September 2024.
9. Yulin Zeng, Thomas Roth, Wenqi Guo, Yi Fang, Yuhong Liu, Hohyun Lee, "Electric Vehicle Schedules Generation With Socio-Demographic Context for Residential Energy Simulation", ASME 2025 Energy Sustainability (ES2025), Westminster, CO, USA, July 8-10, 2025
10. Bhagyashri Tushir, Vikram K Ramanna, Yuhong Liu, Behnam Dezfouli "Accurate Identification of IoT Devices in the Presence of Wireless Channel Dynamics", 2024 the 49th IEEE Conference on Local Computer Networks (LCN 2024), Oct. 8-10, 2024, France
11. Peng Zhang, Junpeng Peng, Yuhong Liu, Zujie Tang "Security-aware Transactive Energy System with Virtual Power Plants Through Blockchain and Multi-Signature", International Conference on Blockchain Research and Applications (BCRA 2024)
12. Peng Zhang, Yongwen Huang, Fa Ge, **Yuhong Liu**, "Group-Oriented Multi-Signature Supporting Monotonic Endorse Policies in Hyperledger Fabric", IEEE Blockchain 2023, acceptance rate: 18.2%
13. Wei Yao, **Yuhong Liu**, Fadi P. Deek, and Guiling Wang. "iBCTrans: A Practical Blockchain-Based Framework for Cellular Vehicular-To-Everything Networks." In 2023 IEEE International Conference on Blockchain (Blockchain), pp. 239-246. IEEE, 2023. acceptance rate: 18.2%
14. Wei Yao, **Yuhong Liu**, Fadi Deek and Guiling Wang "VDKMS: Vehicular Decentralized Key Management System for Cellular Vehicular-to-Everything Networks, A Blockchain-Based

Approach”, 2023 IEEE Global Communications Conference: Communication & Information Systems Security, 4–8 December 2023, Kuala Lumpur, Malaysia

15. Ye Chen, Peilin Wu, Yuanliang Li, Peng Zhang, Jun Yan, Mohsen Ghafouri, **Yuhong Liu**, “A Blockchain-based Co-Simulation Platform for Transparent and Fair Energy Trading and Management”, The 5th ACM International Symposium on Blockchain and Secure Critical Infrastructure (BSCI 2023), Melbourne, Australia.
16. Xiaoxiao Shang, Ye Chen, Yi Fang, **Yuhong Liu**, Subramaniam Vincent, “AMICA: Alleviating Misinformation for Chinese Americans”, In Proceedings of the 46th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR’23), July 23–27, 2023, Taipei
17. Yuanliang Li, Luyang Hou, Jun Yan, **Yuhong Liu**, Moshen Ghafouri, Peng Zhang, “A Two-Stage Packetized Energy Trading and Management Framework for Virtual Power Plants”, IEEE Power & Energy Society General Meeting (GM) 16 – 20 July 2023 | Orlando, Florida.
18. Bhagyashri Tushir, **Yuhong Liu**, Behnam Dezfouli, “Leveraging Frame Aggregation in Wi-Fi IoT Networks for Low-Rate DDoS Attack Detection”, The 16th International Conference on Network and System Security (NSS), Denarau Island, Fiji, Dec 9 - Dec 12, 2022, Acceptance rate: 26%
19. Park, Seohyun, Xiang Li, and Yuhong Liu. "Trust-Based Communities for Smart Grid Security and Privacy." In International Wireless Internet Conference, pp. 28-43. Cham: Springer Nature Switzerland, 2022.
20. Ivan Mihov, Haiquan Chen, Xiao Qin, Wei-Shinn Ku, Da Yan, and **Yuhong Liu**, “MentalNet: Heterogeneous Graph Representation for Early Depression Detection”, IEEE ICDM 2022, November 28 – December 1, 2022, Orlando, Florida.
21. Yuanliang Li, Luyang Hou, Hang Du, Jun Yan, **Yuhong Liu**, Mohsen Ghafouri, and Peng Zhang. "PEMT-CoSim: A Co-Simulation Platform for Packetized Energy Management and Trading in Distributed Energy Systems." In 2022 IEEE International Conference on Communications, Control, and Computing Technologies for Smart Grids (SmartGridComm22), 25–28 October 2022, Singapore, pp. 96-102. IEEE, 2022.
22. **Yuhong Liu**, Wenjia Li, Weisong Shi, “Toward A Decentralized, Trustworthy and Fair Vehicle Resource Sharing as a Service: Key Technologies and Challenges”, 2022 Fifth International Conference on Connected and Autonomous Driving (MetroCAD), Detroit, MI, April 28-29, 2022
23. I Chang, Orion Sun, Jasper Ahn, **Yuhong Liu**, “Is Social Diversity Related to Misinformation Resistance? An Empirical Study on Social Communities”, IEEE Global Humanitarian Technology Conference (GHTC), Virtual, October 19-23, 2021
24. Olivia Figueira, Yuka Hatori, Liying Liang, Christine Chye, and **Yuhong Liu**, “Understanding COVID-19 Public Sentiment Towards Public Health Policies Using Social Media Data”, IEEE Global Humanitarian Technology Conference (GHTC), Virtual, October 19-23, 2021
25. Holden Gordon, Conrad Park, Bhagyashri Tushir, **Yuhong Liu**, Behnam Dezfouli, “An Efficient SDN Architecture for Smart Home Security Accelerated by FPGA”, IEEE International Symposium on Local and Metropolitan Area Networks (LANMAN), 2021
26. Patrick J. McCurdy, Kaleb Pattawi, Chenli Wang, Thomas Roth, Cuong Nguyen, Yuhong Liu, and Hohyun Lee, “Validation Approach for Energy Optimization Models of Grid-Interactive Buildings Using Co-Simulation”, International Mechanical Engineering Congress and Exposition IMECE2021 November 1-5, 2021, Virtual, Online
27. Holden Gordon, Christopher Batula, Bhagyashri Tushir, Behnam Dezfouli and Yuhong Liu, “Securing Smart Homes via Software-Defined Networking and Low-Cost Traffic Classification”, IEEE Computers, Software, and Applications Conference (COMPSAC), July 12-16, 2021, acceptance rate: 27%

28. Madhuri Ghorpade, Haiquan Chen, Yuhong Liu, Zhe Jiang, “SMART: Emerging Activity Recognition with Limited Data for Multi-modal Wearable Sensing”, 2020 IEEE International Conference on Big Data (IEEE BigData 2020), December 10 – 13, 2020.
29. C. Wang, J. Jiang, T. Roth, C. Nguyen, Y. Liu, and H. Lee, “Integrated Sensor Data Processing for Occupancy Detection in Residential Buildings”, presentation only, The 14th International Conference on Energy Sustainability, June 2020, American Society of Mechanical Engineers
30. Brandon Tsao, Yuhong Liu, Behnam Dezfouli, “Analysis of the Duration and Energy Consumption of AES Algorithms on a Contiki-based IoT Device”, The 16th EAI International Conference on Mobile and Ubiquitous Systems: Computing, Networking and Services (MobiQuitous 2019), Nov. 12-14, 2019, Houston, United States, acceptance rate: 30%
31. Gabriel Jerome Solomon, Peng Zhang, Yuhong Liu, Rachael Brooks, “Blockchain based Owner-Controlled Secure Software Updates for Resource-Constrained IoT”, The 13th International Conference on Network and System Security (NSS), Sapporo, Japan, 15-18, December 2019
32. Ramzi Nofal, Nam Tran, Carlos Garcia, Yuhong Liu, Behnam Dezfouli, “A Comprehensive Empirical Analysis of TLS Handshake and Record Layer on IoT Platforms”, The 22nd ACM International Conference on Modeling, Analysis and Simulation of Wireless and Mobile Systems (MSWIM 2019), acceptance rate 29%
33. Hanlin Mou, Yuhong Liu, Li Wang, “LSTM for Mobility Based Content Popularity Prediction in Wireless Caching Networks”, IEEE GLOBECOM 2019 Workshop on Wireless Edge Intelligence, Waikoloa, Hawaii, 2019
34. Chuxin Wu, Peng Zhang, Hongwei Liu, Yuhong Liu, “Multi-keyword Ranked Searchable Encryption Supporting CP-ABE Test”, The Computing, Communications and IoT Applications Conference (ComComAp2019), Shenzhen University, Shenzhen, China, October 26-28, 2019.
35. Kavin Kamaraj, Behnam Dezfouli, Yuhong Liu, “Edge Mining on IoT Devices Using Anomaly Detection”, Asia-Pacific Signal and Information Processing Association Annual Summit and Conference (APSIPA ASC), Lan Zhou, China, Nov. 18-21, 2019.
36. Lin Zhang, Yuhong Liu, “Modeling the Views of WeChat Articles by Branching Processes”, Asia-Pacific Signal and Information Processing Association Annual Summit and Conference (APSIPA ASC), Lan Zhou, China, Nov. 18-21, 2019.
37. Shangqi Lai, Xingliang Yuan, Shi-Feng, Joseph K. , Yuhong Liu, Dongxi Liu, “GraphSE²: An Encrypted Graph Database for Privacy-Preserving Social Search”, The 14th ACM Asia Conference on Information, Computer and Communications Security (ASIACCS 2019), acceptance rate 18%
38. Shanxi Li, Qingguo Zhou, Zhifeng Chen, Yuhong Liu, Nam Ling, "A Linear Model for YUV 4:2:0 Chroma Intra Prediction," IEEE ISCAS 2019
39. Na Li, Lin Li, Yuhong Liu, “FriPEL: Friendship Privacy Educational Labware”, The 4th IEEE International Symposium on Security and Privacy in Social Networks and Big Data (SocialSec 2018), Santa Clara, U.S.A., Dec 10- 11th 2018
40. Zigang Chen, Lixiang Li, Haipeng Peng, Yuhong Liu, Yixian, Haihua Zhu, “A novel evaluation method of image scrambling degree based on pixel distribution”, The 4th IEEE International Symposium on Security and Privacy in Social Networks and Big Data (SocialSec 2018), Santa Clara, U.S.A., Dec 10- 11th 2018
41. Jun Jiang, Yuhong Liu, Behnam Dezfouli, “A Root-based Defense Mechanism Against RPL Blackhole Attacks in Internet of Things Networks”, Asia Pacific Signal and Information Processing Association Annual Summit and Conference (APSIPA ASC), Hawaii, U.S.A., Nov. 12-15, 2018.
42. Pedro Sanchez Munoz, Nam Tran, Brandon Craig, Behnam Dezfouli, Yuhong Liu, “Energy and Time Evaluation of AES Encryption using IoT Devices”, Asia Pacific Signal and Information

Processing Association Annual Summit and Conference (APSIPA ASC), Hawaii, U.S.A., Nov. 12-15, 2018.

43. Alejandro Hernandez Gerez, Kavin Kamaraj, Ramzi Nofal, **Yuhong Liu**, Behnam Dezfouli, "Energy and Processing Demand Analysis of TLS Protocol in Internet of Things Applications", IEEE International Workshop on Signal Processing Systems (SiPS 2018), Cape Town, South Africa, October 21-24, 2018
44. Xunfei Jiang, **Yuhong Liu**, Xiaojun Ruan, Tuguldur Baigalmaa, Lam Nguyen, Daiki Akiyoshi, Charles Peck, "Energy Modeling of Cluster Systems", IEEE International Workshop on Signal Processing Systems (SiPS 2018), Cape Town, South Africa, October 21-24, 2018
45. Bhagyashri Tushir, Hetesh Sehgal, Rohan Nair, Behnam Dezfouli, **Yuhong Liu**, "The Impact of DoS Attacks on Resource-constrained IoT Devices: A Study on the Mirai Attack", The 11th International Conference on Ubi-Media Computing (UMEDIA 2018), Nanjing, China, August 22-25, 2018.
46. **Yuhong Liu**, Xiaojun Ruan, Songjie Cai, Ruiwei Li, Hanxiao He, "An optimized VM Allocation Strategy to Make a Secure and Energy-Efficient Cloud Against Co-residence Attack", International Conference on Computing, Networking and Communications (ICNC 2018), Maui, Hawaii, USA, March 5-8, 2018 (acceptance rate: 26%)
47. Kirk Iserman, **Yuhong Liu**, "Preference Elicitation in Recommender Systems using Matrix Factorization with Non-Personalized and Personalized Steps", the 51st Asilomar Conference on Signals, Systems and Computers, Pacific Grove, California, October 29 - November 1, 2017
48. **Yuhong Liu**, Wenqi Zhou, "A Novel Iterative Online Rating Attack based on Market Self-exciting Property", The 42nd IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP'17), New Orleans, USA, March 5-9th, 2017
49. Ziyang Zhang, **Yuhong Liu**, Zhigang Jin and Rui Zhang, "Selecting Influential and Trustworthy Neighbors for Collaborative Filtering Recommender Systems", The 7th IEEE Annual Computing and Communication Workshop and Conference (CCWC'17), Las Vegas, USA, Jan. 9 – 11th, 2017
50. Manav Jaiswal, **Yuhong Liu** and Nam Ling, "Design and Implementation of a Greener Home Automation System", (**Best paper award**), The 9th International Conference on Ubi-Media Computing (UMEDIA 2016), Moscow, Russia, August 15-17, 2016
51. **Yuhong Liu**, Na Li, "An Advanced Collusion Attack against User Friendship Privacy in OSNs", The 40th IEEE Computer Society International Conference on Computers, Software & Applications, Atlanta, Georgia, USA - June 10-14, 2016
52. Sai Samrat Malka, Na Li, Venu Madhavi Doddapaneni, **Yuhong Liu**, Anil Kumar Pamulapati, "A Web Application For Studying Collusion Attacks Through Friend Search Engine", STPSA: The 11th IEEE International Workshop on Security, Trust and Privacy for Software Applications, Atlanta, Georgia, USA - June 10-14, 2016
53. **Yuhong Liu**, Wenqi Zhou, "Can You Really Make Profit from Online Rating Manipulations?: An Empirical Study", The 40th IEEE Computer Society International Conference on Computers, Software & Applications, Atlanta, Georgia, USA - June 10-14, 2016
54. Wenqi Zhou, **Yuhong Liu**, "How Can Online Review Manipulation Affect Market Outcome?: An Empirical Evaluation", The 25th Workshop on Information Technologies and Systems (WITS), Dallas, Texas, U.S.A., Dec. 13th – 14th , 2015
55. **Yuhong Liu**, Jungwoo Ryoo, Syed Rizvi, "Ensuring Data Confidentiality in Cloud Computing: An Encryption and Trust-based Solution", IEEE 2014 23rd Wireless and Optical Communication Conference, NJIT, Newark, New Jersey, U.S.A., May 9th -10th, 2014

56. Syed Rizvi, Jungwoo Ryoo, **Yuhong Liu**, Dustin Zazworsky, and Anthony Cappeta, “A centralized trust model approach for cloud computing”, IEEE 2014 23rd Wireless and Optical Communication Conference, NJIT, Newark, New Jersey, U.S.A., May 9th -10th, 2014
57. **Yuhong Liu**, Yan (Lindsay) Sun, “Can Reputation Manipulation Boost App sales in Android Market”, The 38th International Conference on Acoustics, Speech, and Signal Processing (ICASSP), Vancouver, Canada, May 26th-31st, 2013
58. **Yuhong Liu**, Yan (Lindsay) Sun, Ting Yu, “Defending Multiple-user-multiple-target Attacks in Online Reputation Systems”, IEEE International Conference on Social Computing (SocialCom2011), MIT, Boston, MA, Oct. 9th -11th, 2011
59. **Yuhong Liu**, Fan Zhang, Yan (Lindsay) Sun, He Huang, “Trust Sensor Interface for Improving Reliability of EMG-based User Intent Recognition”, the 33rd Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC’11), Boston, MA, USA, August 30th – Sept.3rd, 2011
60. W.G. Besio, X. Liu, **Y. Liu**, Y.L. Sun, A.V. Medvedev, and K. Koka, “Algorithm for Automatic Detection of Pentylentetrazole-Induced Seizures in Rat”, the 33rd Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC’11), Boston, MA, USA, August 30th – Sept.3rd, 2011
61. **Yuhong Liu**, Yan (Lindsay) Sun, “Anomaly Detection in Feedback-based Reputation Systems through Temporal and Correlation Analysis”, (**Best paper award. The acceptance rate for main conference was 13%**) IEEE International Conference on Social Computing (SocialCom2010), Minneapolis, MN, U.S.A., August 20th – 22nd, 2010
62. **Yuhong Liu**, Yafei Yang, and Yan (Lindsay) Sun, “Detection of Collusion Behaviors in Online Reputation Systems”, Proc. of Asilomar Conference on Signals, Systems, and Computers, PACIFIC GROVE, CA, Oct. 26th -29th, 2008
63. He Huang, Yan (Lindsay) Sun, Qing Yang, Fan Zhang, Xiaorong Zhang, **Yuhong Liu**, Jin Ren, Fabian Sierra, “Integrating Neuromuscular and Cyber Systems for Neural Control of Artificial Legs”, ACM/IEEE International Conference on Cyber-Physical Systems, Stockholm, Sweden. April 13th – 14th, 2010

◆ **Invited talks**

1. Keynote for IEEE CS AI Caravan Summit – Cairo, Egypt, Dec. 2025
2. Keynote for The 2025 International Conference in Cybersecurity, IoT, Data Science, and Digital Forensics, Oct. 2025
3. Panelist for IEEE/Lockheed Martin “The Convergence of Autonomous Systems, AI and Cybersecurity for National Security and Space.”, Oct. 2025
4. Invited Talk “Unmasking Antisemitic Memes: A Contrastive Learning Framework” at the Workshop on combating Anti-Semitism through Machine Learning, Data Analytics and other crucial technologies, June, 2025
5. Moderator for APSIPA panel on “Tomorrow’s Tech, Today’s Earth: AI in the Age of Sustainability”, April 28, 2025
6. Invited Talk at Sonoma State University, CA, 11/08/2024, Trust and Privacy Vulnerabilities in Online Social Networks
7. Panelist for “AI for Sustainability” at SCU AI & Environment conference, 11/01/2024
8. Invited Talk at IEEE CS Vancouver Chapter, 10/06/2024, Trust and Privacy Vulnerabilities in Online Social Networks

9. Invited Talk at IEEE CS Calgary Chapter, 10/7/2024, Trust and Privacy Vulnerabilities in Online Social Networks
10. Invited Talk at IEEE Edmonton Section, 10/8/2024, Trust and Privacy Vulnerabilities in Online Social Networks
11. Invited Talk at IEEE CS Saskatoon Chapter, 10/09/2024, Trust and Privacy Vulnerabilities in Online Social Networks
12. Invited Talk at IEEE CS Winnipeg Chapter, 10/10/2024, Trust and Privacy Vulnerabilities in Online Social Networks
13. Invited Talk at IEEE CS San Diego Chapter, 06/27/2024, Facilitating Security and Trust among Multiple Parties through Blockchain Techniques
14. Invited Talk at IEEE CS Orange County Chapter, 06/28/2024, Facilitating Security and Trust among Multiple Parties through Blockchain Techniques
15. Invited Talk at NJIT, Facilitating Security and Trust among Multiple Parties through Blockchain Techniques, 10/2024
16. IEEE Computer & Communications Joint Society in Northwest Florida, Title: 'Trust and Privacy Vulnerabilities of Today's Online Social Networks', Online, August 10, 2023.
17. IEEE Computer Society Distinguished Visitor Program (IEEE CS DVP) first 24+ hour online event, the IEEE CS EXA DVP Event, Online, "Facilitating Security and Trust among Multiple Parties through Blockchain Techniques", June 3, 2023.
18. Invited Talk at IEEE Victorian Section AGM & Dinner 2022 on "Human Factors in Trust based Attacks/Defenses in Online Social Networks", Dec. 16th, 2022
19. Invited Talk at IEEE Computer Society Buffalo Chapter on "Facilitating Security and Trust among Multiple Parties through Blockchain Techniques", Nov. 18th, 2022
20. Moderator for the plenary panel on "Disinformation and Misinformation" of the IEEE Computer Society Digital Platforms and Societal Harms Tech Forum 2022, Nov. 3rd, 2022
21. Invited Talk at IEEE Computer Society Distinguish Visitor Webinar on "Facilitating Security and Trust among Multiple Parties through Blockchain Techniques", Oct. 28th, 2022
22. Invited Talk at Singapore Nanyang Technology University on "Human Factors in Trust based Attacks/Defenses in Online Social Networks", Oct. 25th, 2022
23. Invited Talk at IEEE Computer Society Singapore Chapter on "Facilitating Security and Trust among Multiple Parties through Blockchain Techniques", Oct. 28th, 2022
24. Guest Lecture at Monash University, Australia, on "Human Factors in Trust based Attacks/Defenses in Online Social Networks", Oct. 17th, 2022
25. Invited Talk at IEEE Computer Society Hawaii Chapter on "Facilitating Security and Trust among Multiple Parties through Blockchain Techniques", Oct. 11th, 2022
26. Invited Talk at IEEE Computer Society Maine Chapter (UMaine AI webinar) on "Human Factors in Trust based Attacks/Defenses in Online Social Networks", Oct. 7th, 2022
27. Invited Talk at IEEE Computer Society Rock River Valley Section on "Facilitating Security and Trust among Multiple Parties through Blockchain Techniques", March 17, 2022
28. IEEE R10 CS Mega DVP Program, Online, 05/07/2022, Title: Trust & Privacy Attacks in Online Social Networks
29. Panelist for "**Web3 – Reality or Vaporware?**" hosted by ACG Silicon Valley on Feb. 16, 2022
30. Invited Talk at IEEE Computer Society Oakland & East Bay Chapter on "Trust and Privacy Attacks in Online Social Networks", 01/19/2022

31. Moderator for panel on “**Social Media Disinformation and its Impact on Public Health During the COVID-19 Pandemic**” at IEEE GHTC 2021, Oct. 20th 2021
32. Keynote on “**Facilitating Security and Trust among Multiple Parties through Blockchain Techniques**” at 4th Workshop on Blockchains for Inter-Organizational Collaboration (BIOC’21), June 21, 2021
33. Moderator for panel on “**Computing Security, Trust and Privacy in a Hyperconnected World**” at APSIPA U.S. Local Chapter, Feb. 20, 2021
34. Panelist on “Special Technical Communities (STC)” at COMPSAC 2020.
35. Panelist on “Computing Trust and Security”, ACG Silicon Valley's February Keynote, Feb. 2020
36. "Trustworthy Computing and Cyber Security", Lanzhou University, Nov. 2019
37. “Trust and Privacy Attacks in Online Social Networks”, ISC 2 Silicon Valley Chapter, Sept. 10th, 2019.
38. “Trust and Privacy Attacks in Online Social Networks”, National Central University, and Tamkang University, Taiwan, July 2019.
39. “Trust and Privacy Attacks in Online Social Networks”, Tianjin University, Xi’an University of Posts and Telecommunications, and Zhongyuan University of Technology, China, 2018.
40. “Retrieving Trustworthy User Generated Information in the Big Data Era”, Beijing University of Posts and Telecommunications, China, Dec. 2017.
41. “Retrieving Trustworthy User Generated Information in the Big Data Era”, Peking University, Tianjin University, Nankai University, China, August, 2017
42. “Security, Privacy and Trust in Online Social Media”, Fuzhou University and Lanzhou University, China, April, 2017
43. “Security, Privacy and Trust in Online Social Media”, invited talk at Xiamen University, Tianjin University, Xi’an University of Posts and Telecommunications, China, June, 2016
44. “Securing Online Reputation Systems”, Ph.D forum on **Grace Hopper Celebration for Women in Computing** (GHC 2012), Oct. 3rd -6th, 2012
45. “Safety Assurance of Neural-controlled Artificial Legs”; Panelist, “Network Security and Trust”, Cybersecurity Symposium 2011, University of Rhode Island, April 11th, 2011

◆ **Technical Report and Posters**

1. Na Li, **Yuhong Liu**, Venu Madhavi Doddapaneni and Sai Samrat Malka, "The Design of a Friend Search Web Service for Studying Users' Query Behavior", special issue on "Security and Privacy in Online Social Networks", IEEE Computer Society Special Technical Community on Social Networking E-Letter, vol. 2, no. 4, December 2014.
2. **Yuhong Liu**, Yan (Lindsay) Sun, "Arguable App Boosting Strategies - Are They Working in a Small Social Community?", special issue on "Security and Privacy in Online Social Networks", IEEE Computer Society Special Technical Community on Social Networking E-Letter, vol. 2, no. 4, December 2014.
3. **Yuhong Liu**, Yan (Lindsay) Sun, Siyuan Liu, Alex C. Kot, “Identifying Malicious Users in Online Reputation Systems through Dempster-Shafer theory based Trust Model”, poster track, IEEE International Workshop on Multimedia Signal Processing (MMSP 2012), Banff, Canada, September 17th-19th, 2012
4. **Yuhong Liu**, Yan (Lindsay) Sun, Detecting Cheating Behaviors in Cyber Competitions by Constructing Competition Social Network, poster track, IEEE International Workshop on Information Forensics and Security (WIFS'11), Brazil, Nov. 29th-Dec. 2nd, 2011

5. “Detecting Cheating Behaviors in Cyber Competitions by Constructing Competition Social Network”, **Yuhong Liu**, Yan L. Sun, Cybersecurity Symposium 2012, University of Rhode Island, May 2nd, 2012
6. “Securing Reputation Systems in the Cyber Space”, **Yuhong Liu**, Yan L. Sun, Cybersecurity Symposium 2011, University of Rhode Island, April 11th, 2011
7. “Trust Sensor Interface for Improving Reliability of EMG-based User Intent Recognition”, **Yuhong Liu**, Yan L. Sun, Cybersecurity Symposium 2011, University of Rhode Island, April 11th, 2011
8. “Securing Reputation Systems in the Cyber Space”, **Yuhong Liu**, Yan L. Sun, Discovery@URI, April 13th, 2011

Professional Services

◆ Professional Society Committee

1. Chair of IEEE Computer Society Richard E. Merwin Student Scholarship (2024~)
2. Chair of IEEE Computer Society Technical Meeting Request Committee (TMRC), 2022~ present
3. Chair of IEEE STC Executive Committee Board, 02/2019 ~ 2021; Vice Chair (for Special Technical Communities) of the IEEE Computer Society Member & Geographic Activities Board, 2019 ~ 2021, 2022~2023
4. IEEE Computer Society GAC Region 6 area 4 coordinator, 2021~ present
5. Member of Diversity & Inclusion committee for the IEEE CS T&C ExCom
6. Committee member of IEEE STC Executive Committee Board, 2014 ~2023
7. Chair of IEEE Special Technical Community on Social Networks (STCSN), 09/2018 ~ present; Membership Chair of IEEE Special Technical Community on Social Networks (STCSN), 09/2013~ 08/2018
8. Committee member of IEEE Computer Society Technical Meeting Request Committee (TMRC), 07/2016 ~ 2021
9. Member of the Technical committee on Multimedia Security and Forensics (MSF) for Asia-Pacific Signal and Information Processing Association (APSIPA)

◆ Conference Organizing Committee

1. Emerging Technology Track Co-Chair for the International Conference on Privacy, Security and Trust (PST) 2026
2. The Co-Chair of the Workshop on Agentic Energy Systems in Smart Grids: Theories, Technologies and Applications, IEEE SmartGridComm 2024
3. The TPC Chair of the IEEE Digital Platforms and Societal Harms 2024
4. The TPC Chair of the 8th EAI International Conference on Smart Grid and Innovative Frontiers in Telecommunications 2023
5. The organizing committee member of the IEEE Computer Society Tech Forum on Digital Platforms and Societal Harms 2023
6. The vice chair of the IEEE GHTC 2022
7. The local co-chair of the Sixth ACM/IEEE Symposium on Edge Computing (SEC) 2022
8. The technical program co-chair of the SocialSec 2021.
9. The program co-chair of the 12th International Conference on Ubi-Media Computing (UMEDIA 2019)
10. The publicity co-chair of the 15th IEEE International Conference on Green Computing and Communications (GreenCom- 2019), Atlanta, USA, July 14 – 17, 2019
11. The program co-chair of the 4th IEEE International Symposium on Security and Privacy in Social Networks and Big Data (SocialSec 2018), Santa Clara, CA, USA, Dec 10- 12th, 2018
12. Special session co-chair of Asia-Pacific Signal and Information Processing Association Annual Summit and Conference (APSIPA), 12-15 November 2018, Honolulu, Hawaii, USA;

13. Special session co-chair of IEEE Workshop on Signal Processing Systems(SiPS), 21-24 October 2018, Cape Town, South Africa, 2018;
14. The program co-chair of the 11th International Conference on Ubi-Media Computing (UMEDIA 2018), Nanjing, China, 2018
15. The program co-chair of the 3rd International Symposium on Security and Privacy in Social Networks and Big Data (SocialSec 2017), Melbourne, Australia, 13-15 December 2017
16. Publicity co-Chair of The 4th International Conference on Big Data and Smart Computing (BigComp 2017), Jeju Island, Jeju, KOREA, Feb 13 - Feb 16, 2017
17. Track chair for IEEE COMPSAC - Workshop on Emerging Topics in Cognitive Computing & Robotics 2022
18. Steering committee member of HCSC Symposium at IEEE COMPSAC, June 2017
19. Finance co-Chair of IEEE GlobalSIP 2015, Orlando, FL, USA, December 14th-16th
20. General Chair of HCSL Symposium at IEEE COMPSAC, 2016, Atlanta, Georgia, USA, June 10-14, 2016

◆ **Conference Technical Program Committee**

1. The 6th ACM International Symposium on Blockchain and Secure Critical Infrastructure (ACM BSCI 2024)
2. The DePIN 2024 workshop
3. IEEE Blockchain 2023, 2024
4. INFOCOM MobiSec 2023
5. ACISP 2023 - the 28th Australasian Conference on Information Security and Privacy
6. 2019-2022 International Conference on High Performance Big Data and Intelligent Systems
7. The 2nd International Conference on Ubiquitous Security (UbiSec) 2022
8. The 31st International Conference on Computer Communications and Networks (IEEE ICCCN 2022) Track on Mobile, Edge, and Cloud Computing
9. The World AI IoT Congress 2021
10. The 30th International Conference on Computer Communications and Networks (ICCCN 2021)
11. The IEEE International Conference on Multimedia and Expo (ICME) 2021
12. The 25th Australasian Conference on Information Security and Privacy, Perth, Australia (ACISP 2020)
13. Area Chair of The IEEE International Conference on Multimedia and Expo (ICME) 2020
14. The 27th IEEE International Symposium on the Modeling, Analysis, and Simulation of Computer and Telecommunication Systems (MASCOTS 2019)
15. The 89th IEEE Vehicular Technology Conference (VTC 2019)
16. The 2019 IEEE 10th Annual Computing and Communication Workshop and Conference, (CCWC)
17. The 10th IEEE Annual Ubiquitous Computing, Electronics & Mobile Communication Conference (IEEE UEMCON 2019)
18. The Sixth International Conference on eDemocracy & eGovernment (ICEDEG 2019)
19. The International Conference on Computing, Networking and Communications (ICNC Feb. 2019)
20. The IEEE COMPSAC Symposium on Human Computing and Social Computing (HCSC), July 2018
21. The International Conference on Computing, Networking and Communications (ICNC March 2018)
22. The IEEE Conference on Computer Communications Workshops (INFOCOM WKSHPS): MobiSec: Security, Privacy, and Digital Forensics of Mobile Systems and Networks, May 2017
23. The IEEE COMPSAC Symposium on Security, Privacy and Trust in Computing (SEPT); The IEEE COMPSAC Symposium on Human Computing and Social Computing (HCSC), July 2017
24. The Fourth ASE International Conference on Social Informatics Oct. 2015
25. GlobalSIP14-Workshop on Information Forensics and Security Dec. 2014

26. ASE/IEEE International Conference on Social Computing Sept. 2012

- ◆ **NSF Panel Review 2017**

- ◆ **Editor/Reviewer**

Associate Editor for IEEE Transactions on Circuits and Systems for Video Technology (T-CSVT) (Jan. 1, 2025 to Dec. 31, 2026)

Associate Editor for IEEE Transactions on Service Computing (2024~)

Associate Editor for Multimedia Applications and Tools (2024~)

Youth EBM Editor of Blockchain Research and Application Journal (2023~)

Editorial board member of Cognitive Robotics, Elsevier

Associate Editor of APSIPA Transactions on Signal and Information Processing

Guest Editor for Themed Series on “Deepfake and Unrestricted Adversarial Examples in the Era of Multimodal and Synthetic Realities”, APSIPA Transaction on Signal and Information Processing, 2024

Guest Editor for Themed Series on “Multi-Disciplinary Dis/Misinformation Analysis and Countermeasures”, APSIPA Transaction on Signal and Information Processing, April, 2022

Guest Editor of Special Issue on “Edge and Fog Computing for Internet of Things Systems”, Sensors MDPI, July, 2021

Guest Editor for Concurrency and Computation: Practice and Experience for Special Issue on “Security and Privacy in Social Data Mining”, 2019

Associate Editor of IEEE Inside Signal Processing E-Newsletter, 06/2014 ~ 2018

Guest Editor for Mathematical Problems in Engineering for Special Issue on “Security and Privacy Protection of Social Networks in Big Data Era”, Vol. 2018, 2018

Guest Editor of STCSN e-Letter special issue on "Security and privacy issues in online social network" Vol.2 No.4, 2015

Affiliation

- ◆ Member of IEEE since 2008
- ◆ Member of IEEE Computer Society since 2013
- ◆ Member of IEEE Signal Processing Society since 2008
- ◆ Member of APSIPA since 2019