
Yuhong Liu

Ph.D

Santa Clara University
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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 and Cyber security in emerging applications, including Online Social Media, Internet-of-Things, and Blockchain.

Professional Appointments

Associate Professor, Santa Clara University, CA, USA 09/2020~
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

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 in IEEE International Conference on Social Computing 2010

Pending or Awarded Funding

1. “Co-simulation of Residential Buildings Energy Control Systems under Transactive Energy Approaches”, NIST, \$74,999 (Co-PI, Awarded)
2. “Verification of Human Behavior Sensing Model for Residential Building Energy Saving via Co-simulation Platform”, NIST, \$40,000 (Co-PI, Awarded)
3. “Securing Multi-tenant Cloud Computing through Trust Management”, Santa Clara University, School of Engineering Research Grant, \$23,510 (Awarded)
4. “Securing Multi-tenant Cloud Computing through Trust Management”, Santa Clara University, School of Engineering Research Grant, \$23,510 (Awarded)
5. “A Cross-platform Online Reputation Management Framework”, Penn State Altoona Research Development Grant, 11/1/2013, \$2,576 (Awarded)
6. Undergraduate Research Assistance Award, 11/1/2013, \$2,000 (Awarded)

Publications

◆ Journal

1. Shaojie Yang, Shanxi Li, Wenbo Chen, **Yuhong Liu**, “A Real-Time and Adaptive-Learning Malware Detection Method Based on API-Pair Graph”, IEEE Access, accepted. (IF: 3.745)
2. 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, doi: 10.1109/TIFS.2020.3042070. (IF: 6.013)
3. C. Wang, J. Jiang, T. Roth, C. Nguyen, **Y. Liu**, and H. Lee, “Integrated Sensor Data Processing for Occupancy Detection in Residential Buildings”, Energy and Buildings, Elsevier, accepted (IF: 4.495)
4. Zhigang Jin, Xiaofang Zhao, **Yuhong Liu**, “Heterogeneous Graph Network Embedding for Sentiment Analysis on Social Media”, Cognitive Computing, Springer, 2020, accepted (IF: 4.98)
5. 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, accepted (IF: 11.75).
6. 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).
7. 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).
8. 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).
9. 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).
10. 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).
11. **Yuhong Liu**, Yue Han, Kirk Iserman, Zigang 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).
12. **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)
13. 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.
14. 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)
15. 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)

16. 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).
17. 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)
18. **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)
19. 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)
20. **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.
21. Wenqi Zhou, **Yuhong Liu**, "Online Product Rating Manipulation and Market Performance", IEEE Computer, 48 (5), pp. 72-75, 2015. (IF: 1.755)
22. **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)
23. **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
24. 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)
25. 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)
26. 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. 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.

2. 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
3. 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%
4. 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
5. 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%
6. 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
7. 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.
8. 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.
9. 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.
10. 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%
11. Shanxi Li, Qingguo Zhou, Zhifeng Chen, **Yuhong Liu**, Nam Ling, "A Linear Model for YUV 4:2:0 Chroma Intra Prediction," IEEE ISCAS 2019
12. 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
13. 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
14. 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.
15. 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.

16. 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
17. 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
18. 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.
19. **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%)
20. 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
21. **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
22. 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
23. 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
24. **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
25. 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
26. **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
27. 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
28. **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
29. 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

30. **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
31. **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
32. **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
33. 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
34. **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
35. **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
36. 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. Panelist on “Special Technical Communities (STC)” at COMPSAC 2020.
2. Panelist on “Computing Trust and Security”, ACG Silicon Valley's February Keynote, Feb. 2020
3. "Trustworthy Computing and Cyber Security", Lanzhou University, Nov. 2019
4. “Trust and Privacy Attacks in Online Social Networks”, ISC 2 Silicon Valley Chapter, Sept. 10th, 2019.
5. “Trust and Privacy Attacks in Online Social Networks”, National Central University, and Tamkang University, Taiwan, July 2019.
6. “Trust and Privacy Attacks in Online Social Networks”, Tianjin University, Xi’an University of Posts and Telecommunications, and Zhongyuan University of Technology, China, 2018.
7. “Retrieving Trustworthy User Generated Information in the Big Data Era”, Beijing University of Posts and Telecommunications, China, Dec. 2017.
8. “Retrieving Trustworthy User Generated Information in the Big Data Era”, Peking University, Tianjin University, Nankai University, China, August, 2017
9. “Security, Privacy and Trust in Online Social Media”, Fuzhou University and Lanzhou University, China, April, 2017
10. “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
11. “Securing Online Reputation Systems”, Ph.D forum on **Grace Hopper Celebration for Women in Computing** (GHC 2012), Oct. 3rd -6th, 2012

12. "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

◆ NSF Panel Review

◆ Professional Society Committee

1. Member of Diversity & Inclusion committee for the IEEE CS T&C ExCom
2. IEEE Computer Society GAC Region 6 area 4 coordinator, 2021~ present
3. Chair of IEEE STC Executive Committee Board, 02/2019 ~ 2021; Vice Chair (Special Technical Communities) of the IEEE Computer Society Member & Geographic Activities Board, 2019 ~ 2021
4. Committee member of IEEE STC Executive Committee Board, 09/2014 ~present
5. 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
6. Committee member of IEEE Computer Society Technical Meeting Request Committee (TMRC), 07/2016 ~ present
7. Member of the Technical committee on Multimedia Security and Forensics (MSF) for Asia-Pacific Signal and Information Processing Association (APSIPA)

◆ Conference Organizing Committee

1. The program co-chair of the 12th International Conference on Ubi-Media Computing (UMEDIA 2019)
2. The publicity co-chair of the 15th IEEE International Conference on Green Computing and Communications (GreenCom- 2019), Atlanta, USA, July 14 – 17, 2019
3. 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
4. Special session co-chair of Asia-Pacific Signal and Information Processing Association Annual Summit and Conference (APSIPA), 12-15 November 2018, Honolulu, Hawaii, USA;
5. Special session co-chair of IEEE Workshop on Signal Processing Systems(SiPS), 21-24 October 2018, Cape Town, South Africa, 2018;
6. The program co-chair of the 11th International Conference on Ubi-Media Computing (UMEDIA 2018), Nanjing, China, 2018
7. 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
8. 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
9. Steering committee member of HCSC Symposium at IEEE COMPSAC, June 2017
10. Finance co-Chair of IEEE GlobalSIP 2015, Orlando, FL, USA, December 14th-16th
11. General Chair of HCSL Symposium at IEEE COMPSAC, 2016, Atlanta, Georgia, USA, June 10-14, 2016

◆ **Conference Technical Program Committee**

1. The World AI IoT Congress 2021
2. The 30th International Conference on Computer Communications and Networks (ICCCN 2021)
3. The IEEE International Conference on Multimedia and Expo (ICME) 2021
4. The 25th Australasian Conference on Information Security and Privacy, Perth, Australia (ACISP 2020)
5. Area Chair of The IEEE International Conference on Multimedia and Expo (ICME) 2020
6. The 27th IEEE International Symposium on the Modeling, Analysis, and Simulation of Computer and Telecommunication Systems (MASCOTS 2019)
7. The 89th IEEE Vehicular Technology Conference (VTC 2019)
8. The 2019 IEEE 10th Annual Computing and Communication Workshop and Conference, (CCWC)
9. 2019 International Conference on High Performance Big Data and Intelligent Systems (HPBD & IS)
10. The 10th IEEE Annual Ubiquitous Computing, Electronics & Mobile Communication Conference (IEEE UEMCON 2019)
11. The Sixth International Conference on eDemocracy & eGovernment (ICEDEG 2019)
12. The International Conference on Computing, Networking and Communications (ICNC Feb. 2019)
13. The IEEE COMPSAC Symposium on Human Computing and Social Computing (HCSC), July 2018
14. The International Conference on Computing, Networking and Communications (ICNC March 2018)
15. The IEEE Conference on Computer Communications Workshops (INFOCOM WKSHPS): MobiSec: Security, Privacy, and Digital Forensics of Mobile Systems and Networks, May 2017
16. 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
17. The Fourth ASE International Conference on Social Informatics Oct. 2015
18. GlobalSIP14-Workshop on Information Forensics and Security Dec. 2014

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

◆ **Editor/Reviewer**

Editorial board member of Cognitive Robotics, Elsevier

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

Reviewer for ACM Transactions on Multimedia Computing Communications and Applications (2019); IEEE/ACM transactions on computational biology and bioinformatics (2019); IEEE Access (2019); IEEE Internet of Things Journal (2019); IEEE Transactions on Dependable and Secure Computing(2019); IEEE Transactions on Neural Networks and Learning Systems (2019); IEEE GreenCom (2019); 2019 International Conference on High Performance Big Data and Intelligent Systems (2019); ICNC(2017-2019); IEEE U-media (2017-2019); SocialSec (2017-2019); IEEE Transactions on Cloud Computing (2016); IEEE Transactions on Dependable and Secure Computing (2014); IEEE Transactions on Information Forensics & Security (2014~now); IEEE Transactions on Multimedia (2012~2014); Journal of Computing and Information Technology(2014); E-Letter of IEEE Special Technical Community on Social Network (2013~2014); IEEE Symposium Series on Computational Intelligence (SSCI) Doctoral Consortium (2014); IEEE Signal Processing Letters (2013), IEEE Transactions on Emerging Topics in Computing(2013), Ad Hoc & Sensor Wireless Networks (2013), IEEE Transactions on Parallel and Distributed Systems (2012); IEEE Transactions on Information Forensics & Security special issue on Privacy and Trust Management in Cloud and Distributed Systems (2012); Social Network Analysis and Mining(2011); The third IEEE International Conference of Social Computing (2011); IEEE Transactions on Wireless Communications (2011); IEEE Transactions on Intelligent systems (2011); IEEE Signal Processing Magazine Special Issue on Signal and Information Processing for Social Learning and Networking (2011)

◆ **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