

# Hongxin Hu

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## RESEARCH INTERESTS

- Emerging Network Technologies and Security (NFV, SDN, 5G/Next-G, Edge, etc.)
- Security and Privacy in IoT and CPS
- Machine Learning for Security, Privacy, and Networking
- Security and Privacy in Social Networks
- Usable Privacy and Security
- Security in Cloud and Mobile Computing

## ACHIEVEMENT HIGHLIGHTS

- Received **11 NSF** awards (7 as PI and 4 as Co-PI) including an NSF **CAREER** Award, a **\$3M** large-size NSF grant, a **\$2.7M** large-size NSF grant, and a **\$1M** medium-size NSF grant within 6 years
- Secured grants **\$12.12M** total as PI or Co-PI
- Over 100 publications (citations=**5,500+**, h-index=**37**), some of which appeared in top-tier conferences such as CCS, USENIX Security, NDSS, SIGCOMM, INFOCOM, ICNP, CHI, and CSCW, and top journals such as IEEE TDSC, IEEE TIFS, IEEE/ACM TON, JSAC, and IEEE TKDE
- **Eight** papers received or nominated for Best Paper Award
- Research received **50+** media coverage
- Advising/co-advising 6 Ph.D. students. They have recently authored top-tier security conference papers (NDSS'21 [1][2], CCS'20 [3], NDSS'20 [8], CCS'18 [12][13], and NDSS'17 [21]), top-tier networking conference papers (SIGCOMM'20 [5], SIGCOMM'17 [19], ICNP'20 [6], INFOCOM'19 [11], and ICNP'18 [15]), and top-tier HCI conference papers (CHI'20 [9], CSCW'18 [14])
- Early promotion to Associate Professor (2019)
- Received NSF CAREER Award (2019)
- Received Dean's Faculty Fellows Award (2017)
- One Ph.D. student received Outstanding Ph.D. Student Award (2019)
- Led the effort to enable Clemson University to be designated as a National Center of Academic Excellence in Research (CAE-R)
- Helped establish a Cybersecurity Minor at Clemson University and make Clemson University to be designated as a National Center of Academic Excellence in Cyber Defense Education (CAE-CDE)
- Founded ACM International Workshop on Security in Software Defined Networks & Network Function Virtualization (SDN-NFV Security), and served as program co-chairs of SDN-NFV Security 2016-2019

- Served in several conference organizing roles, such as program committees of AAAI 2021, WWW 2021, 2019, ACSAC 2018-2021, ASIACCS 2018-2021, WiSec 2020, CODASPY 2018, SACMAT 2013-2015/2018-2021, and CNS 2017-2020, proceedings chairs of SACMAT 2014/2016-2021 and CODASPY 2017, the poster chair of CODASPY 2018-2021, and the web chair and session chair of CCS 2014
- Gave several talks about NFV security research at NFV World Congress

**EDUCATION** Ph.D. in Computer Science and Engineering, Arizona State University, 2012  
M.S. in Computer Science, China University of Geosciences, 2002  
B.S. in Computer Science, China University of Geosciences, 1997

**PROFESSIONAL EXPERIENCE** *Associate Professor* January 2021 - Present  
Computer Science and Engineering Department, University at Buffalo, SUNY, NY

*Director of Cybersecurity Center* August 2020 - January 2021  
*Associate Professor, School of Computing* August 2019 - January 2021  
*Assistant Professor, School of Computing* July 2014 - August 2019  
*Dean's Faculty Fellow of Computer Science* January 2017 - January 2021  
Clemson University, SC

*Assistant Professor* August 2012 - June 2014  
Department of Computer and Information Sciences, Delaware State University, DE

*Graduate Student Researcher & Lead Graduate Student* August 2008 - July 2012  
Laboratory of Security Engineering for Future Computing (SEFCOM), Arizona State University, AZ

*Graduate Student Researcher* January 2006 - July 2008  
Laboratory of Information Integration, Security and Privacy (LIISP), University of North Carolina at Charlotte, NC

*Visiting Scholar* January 2005 - December 2005  
Laboratory of Information Integration, Security and Privacy (LIISP), University of North Carolina at Charlotte, NC

*Lecturer* August 2002 - December 2004  
College of Computing, China University of Geosciences, China

**HONORS AND AWARDS**

- **Distinguished Paper Award**, Annual Computer Security Applications Conference (ACSAC), 2021
- **Best Paper Award**, IEEE International Conference on Communications (ICC), 2020
- **NSF CAREER Award**, 2019
- **First Place**, Student Research Competition (SRC) in ACM SIGCOMM, 2018
- **Best Paper Award**, ACM Technical Symposium on Computer Science Education (SIGCSE), 2018
- **Dean's Faculty Fellows Award**, College of Engineering, Computing and Applied Sciences, Clemson University, 2017
- **Best Paper Honorable Mention Award**, ACM Symposium on Access Control Models and Technologies (SACMAT), 2016

- **Best Paper Award Nominee**, IEEE International Conference on Network Protocols (ICNP), 2015
- **Top-10 Finalist for Best Applied Security Paper Award**, New York University Cyber Security Awareness Week (CSAW), 2015
- **Spotlight Paper**, IEEE Transactions on Dependable and Secure Computing (TDSC), 2015
- **Front Page News**, Post and Courier, 2015
- **Third Place Award**, Extreme SDN Innovation Challenge, 2015
- **Best Paper Award**, ACM Conference on Data and Application Security and Privacy (CODASPY), 2014
- **Spotlight Paper**, IEEE Transactions on Dependable and Secure Computing (TDSC), 2014
- **Featured Research Paper**, IEEE Special Technical Community on Social Networking (STCSN), 2013
- **First Place Award**, Delaware U.S. Cyber Challenge Competition, “My Little Pwnies” (60% of female students), 2013
- Applied Security Research Best Paper Award Nominee, New York University Cyber Security Awareness Week (CSAW), 2013
- **Outstanding Ph.D. Student Finalist** in Computer Science, Arizona State University, 2012
- **Best Paper Award Nominee**, ACM Symposium on Access Control Models and Technologies (SACMAT), 2011
- **Best Paper Award Nominee**, International Conference on Collaborative Computing: Networking, Applications and Worksharing (CollaborateCom), 2011
- Applied Security Research Best Paper Award Nominee, New York University Cyber Security Awareness Week (CSAW), 2011
- NSF Travel Grant, NSF CAREER Proposal Writing Workshop, 2013
- ACSAC Conferenceship Award, Annual Computer Security Applications Conference (ACSAC), 2011
- NSF Travel Grant, ACM Conference on Computer and Communications Security (CCS), 2010
- IBM PhD Fellowship Nominee, UNCC, 2008
- **Outstanding Teaching Award**, China University of Geosciences, 2004

## GRANTS

### *Funding Summary:*

- **Eleven** NSF grants (including an NSF **CAREER** award, a **\$3M** large-size NSF grant, a **\$2.7M** large-size NSF grant, and a **\$1M** medium-size NSF grant)
- Total funding: **\$12,120,718** (\$2,285,965 as PI)
- Grants from NSF (SaTC, CNS, IIS, OAC, SOC, and DGE), USDOT, U.S. Army, VMware, Google, Amazon, Dell, etc

### *External Grants:*

1. **Co-PI, NSF**, “RAPID: Cyber-Hostility and COVID-19”, (PI: Matthew Costello; other Co-PIs: Feng Luo, Yin Yang, Long Cheng), \$199,996, 06/15/2020 - 05/31/2021.

2. **Co-PI, NSF**, “CloudLab Phase III: Expanding the Frontiers of Cloud Computing Through World-Class Community Infrastructure”, (Clemson PI: Kuang-Ching Wang; other Co-PI: Amy Apon), \$2,699,985 (total: \$10M), subcontracting from University of Utah, 10/01/2020 - 09/30/2024.
3. **Co-PI, U.S. Army**, “Cross Cutting Autonomy Enablers”, (PI: Richard Brooks; other Co-PIs: Pierluigi Pisu, Linke Guo, Jerome McLendon), \$860,488, subcontracting from Army GVSC, 09/01/2020 - 08/31/2022.
4. **PI, NSF**, “CAREER: Towards Elastic Security with Safe and Efficient Network Security Function Virtualization”, \$500,000, 10/01/2019 - 09/30/2024.
5. **PI, NSF & VMware**, “SDI-CSCS: Collaborative Research: S<sup>2</sup>OS: Enabling Infrastructure-Wide Programmable Security with SDI”, \$600,000 (total: \$2,999,489), collaborative project with Guifei Gu (Texas A&M University), Donald Porter (University of North Carolina at Chapel Hill), Eric Keller (University of Colorado at Boulder), and Zhiqiang Lin (Ohio State University), 09/01/2017 - 08/31/2021.
6. **Lead PI, NSF**, “Collaborative Research: CICI: Secure and Resilient Architecture: SciGuard: Building a Security Architecture for Science DMZ based on SDN and NFV Technologies”, \$499,805 (total: \$999,189), collaborative project with Gail-Joon Ahn (Arizona State University), 01/01/2017 - 12/31/2020.
7. **PI, NSF**, “SaTC: EDU: Collaborative: Enhancing Security Education through Transiting Research on Security in Emerging Network Technologies”, \$79,999 (total: \$299,998), collaborative project with Younghee Park (San Jose State University) and Xiaohong Yuan (North Carolina A&T State University), 09/01/2017 - 08/31/2020.
8. **Lead PI, NSF**, “III: Small: Collaborative Research: Privacy-aware Collaborative Data Sharing in Human-centered Social Networks”, \$299,767 (total: \$523,767), collaborative project with Gail-Joon Ahn (Arizona State University), 09/01/2015 - 08/31/2019.
  - Additional \$16,000 awarded May 2017 for Research Experiences for Undergraduates (REU) supplement.
  - Additional \$8,000 awarded May 2016 for Research Experiences for Undergraduates (REU) supplement.
9. **PI, NSF**, “EAGER: Defending Against Visual Cyberbullying Attacks in Emerging Mobile Social Networks”, \$239,680, 09/01/2015 - 08/31/2018.
  - Additional \$16,000 awarded May 2016 for Research Experiences for Undergraduates (REU) supplement.
10. **PI, NSF**, “NSF Student Travel Grant for 2018 ACM International Workshop on Security in Software Defined Networks and Network Function Virtualization (SDN-NFV Security)”, \$5,600, 03/01/2018 - 02/28/2020.
11. **Co-PI, NSF**, “Collaborative Research: CICI: Regional: SouthEast SciEntific Cybersecurity for University Research (SouthEast SECURE)”, (PI: Jill Gemmill; other Co-PIs: Jan Holmevik, Nuyun Zhang), \$158,004 (total: \$452,464), 10/01/2016 - 09/30/2019.
12. **Co-PI, NSF**, “US Ignite: Track 1: Enabling Connected Vehicle Applications through Advanced Network Technology”, (PI: James Martin; other Co-PIs: Mashrur Chowdhury, Kuang-Ching Wang), \$614,582, 09/01/2015 - 08/31/2020.
13. **Co-PI, USDOT** (U.S. Department of Transportation), “University Transportation Center - Center for Connected Multimodal Mobility (C<sup>2</sup>M<sup>2</sup>)”, (PI:

- Mashrur Chowdhury; other Co-PIs: Amy Apon, Jim Martin, etc.), \$1,402,200, 11/30/2016 - 09/30/2022.
14. **Co-PI, USDOT** (through University of Tennessee/Southeastern Transportation Center), “Development of a Security Platform for Vehicle to Infrastructure Network”, (PI: Mashrur Chowdhury), \$77,287, 05/02/2016 - 08/31/2017.
  15. **PI, Google**, “Cyber-Hostility and COVID-19”, \$4,637, 08/27/2020 - 08/26/2021.
  16. **PI, Amazon**, “Secure Sharing of Electronic Health Records with AWS”, \$5,000, 07/07/2015 - 07/06/2016.
  17. **Co-PI, Dell**, “Dasein Connector - NFV Extensions”, (PI: Amy W. Apon), \$107,843, 09/01/2014 - 12/31/2015.

*Internal Grants:*

19. **Co-PI**, Clemson University CBSHS/IMPACT grant, “Understanding and Combatting Cyberhate on Social Media”, (PI: Matthew John Costello; other Co-PIs: Joseph P Maer, Feng Luo, Long Cheng), \$20,000, 09/01/2019 - 08/30/2020.
20. **Co-PI**, Clemson University SUCCEEDS, “Next Generation IoT Hardware Security for Resilient Smart Grid and ICT Infrastructures”, (PI: Kumar Venayagamoorthy; other Co-PIs: Yingjie Lao, Kuangching Wang, Michal Jermanowski), \$37,036, 07/01/2018 - 06/30/2019.
21. **Co-PI**, Clemson University/One-Year Accelerate (OYA) Grant, “Alleviating the Negative Consequences of Habitual Trust on Collaborative Privacy Control in Online Social Networks”, (PI: Heshan Sun), \$20,000, 09/01/2016 - 08/31/2018.
22. **PI**, NSF-funded HBCU-UP SMILE Minigrant, “Security-Enhanced Mobile Platforms”, \$5,487, 09/01/2013 - 06/30/2014.
23. **PI**, DSU/Academic Enrichment Program Award, “Secure Data Sharing in Online Social Networks”, \$5,990, 12/15/2012 - 06/15/2013.

**PUBLICATIONS** *Publication Summary:*

- Given the inter-disciplinary nature of my work, I have published across a wide range of conferences, including **security** (CCS, USENIX Security, NDSS, ACSAC, ESORICS, ASIACCS), **networking** (SIGCOMM, INFOCOM, ICNP, HotSDN, IWQoS), **human-computer interaction** (CHI, CSCW, HFES), **system** (APSys), and **computer science education** (SIGCSE).
- My work has been cited a total of **5,541** times with an h-index of **37** and an i10-index of **84** (according to Google Scholar as of February 2021).
- I have **8** papers received or nominated for Best Paper Award, as well as **2** spotlight papers and **1** featured paper.

*Representative Conference/Workshop Publications:*

1. Nishant Vishwamitra, Hongxin Hu, Feng Luo and Long Cheng, “Towards Understanding and Detecting Cyberbullying in Real-world Images”, In *Proceedings of the 28th Network and Distributed System Security Symposium (NDSS 2021)*, February 21-24, 2021. [Acceptance rate: 87/573 = 15.2%]
2. Wenbo Ding, Hongxin Hu and Long Cheng, “IoTsafe: Enforcing Safety and Security Policy with Real IoT Physical Interaction Discovery”, In *Proceedings of the 28th Network and Distributed System Security Symposium (NDSS 2021)*, February 21-24, 2021. [Acceptance rate: 87/573 = 15.2%]

3. Long Cheng, Christin Wilson, Song Liao, Jeffrey Young, Daniel Dong, Hongxin Hu, “Dangerous Skills Got Certified: Measuring the Trustworthiness of Skill Certification in Voice Personal Assistant Platforms”, In *Proceedings of the ACM Conference on Computer and Communications Security (CCS 2020)*, November 9-13, 2020. [Acceptance rate:  $121/715 = 16.9\%$ ]
4. Song Liao, Christin Wilson, Long Cheng, Hongxin Hu and Huixing Deng, “Measuring the Effectiveness of Privacy Policies for Voice Assistant Applications”, In *Proceedings of the 2020 Annual Computer Security Applications Conference (ACSAC 2020)*, December 7-11, 2020. [Acceptance rate:  $70/302 = 23.2\%$ ] (**Distinguished Paper Award**)
5. Zili Meng, Minhu Wang, Jiasong Bai, Mingwei Xu, Hongzi Mao and Hongxin Hu, “Interpreting Deep Learning-Based Networking Systems”, In *Proceedings of the ACM SIGCOMM Conference (SIGCOMM 2020)*, August 10-14, 2020. [Acceptance rate:  $54/250 = 21.6\%$ ]
6. Shuhe Wang, Chen Sun, Zili Meng, Minhu Wang, Jiamin Cao, Mingwei Xu, Jun Bi, Qun Huang, Masoud Moshref, Tong Yang, Hongxin Hu and Gong Zhang, “Martini: Bridging the Gap between Network Measurement and Control Using Switching ASICs”, In *Proceedings of the 26th IEEE International Conference on Network Protocols (ICNP 2020)*, Madrid, Spain, October 13-16, 2020. [Acceptance rate:  $16.84\%$ ]
7. Fei Ding, Hongda Li, Feng Luo, Hongxin Hu, ong Cheng, Hai Xiao and Rong Ge, “DeepPower: Early Detection of IoT Malware through Fine-grained Activity Recognition using Power Side Channels”, In *Proceedings of the 15th ACM ASIA Conference on Computer and Communications Security (ASIACCS 2020)*, Taipei, Taiwan, June 1-5, 2020. [Acceptance rate:  $67/308 = 21.7\%$ ]
8. Menghao Zhang, Guanyu Li, Shicheng Wang, Chang Liu, Ang Chen, Hongxin Hu, Guofei Gu, Qi Li, Mingwei Xu and Jianping Wu, “Poseidon: Enabling Cost-efficient and Agile DDoS Defense with Programmable Switches”, In *Proceedings of the 27th Network and Distributed System Security Symposium (NDSS 2020)*, San Diego, CA, USA, February 23-26, 2020. [Acceptance rate:  $88/506 = 17.4\%$ ]
9. Yifang Li, Nishant Vishwamitra, Hongxin Hu and Kelly Caine, “Towards A Taxonomy of Content Sensitivity and Sharing Preferences for Photos”, In *Proceedings of the 2020 ACM Conference on Human Factors in Computing Systems (CHI 2020)*, Honolulu, Hawaii, USA, April 25-30, 2020. [Acceptance rate:  $760/3126 = 24.3\%$ ]
10. Zili Meng, Jing Chen, Yaning Guo, Chen Sun, Hongxin Hu and Mingwei Xu, “PiTree: Practical Implementation of ABR Algorithms Using Decision Trees”, In *Proceedings of the 27th ACM International Conference on Multimedia (MM 2019)*, Nice, France, October 21-25, 2019. [Oral paper acceptance rate:  $88/936 = 9.4\%$ ]
11. Zhilong Zheng, Jun Bi, Heng Yu, Haiping Wang, Chen Sun, Hongxin Hu and Jianping Wu, “Octans: Optimal Placement of Service Function Chains in Many-Core Systems”, In *Proceedings of the 37th IEEE International Conference on Computer Communications (INFOCOM 2019)*, Paris, France, April 29-May 2, 2019. [Acceptance rate:  $288/1464 = 19.7\%$ ]
12. Wenbo Ding and Hongxin Hu, “On the Safety of IoT Device Physical Interaction Control”, In *Proceedings of the 25th ACM Conference on Computer and Communications Security (CCS 2018)*, Toronto, Canada, October 15-19, 2018. [Acceptance rate:  $134/809 = 16.6\%$ ]

13. Hongda Li, Hongxin Hu, Guofei Gu, Gail-Joon Ahn and Fuqiang Zhang, “vNIDS: Towards Elastic Security with Safe and Efficient Virtualization of Network Intrusion Detection Systems”, In *Proceedings of the 25th ACM Conference on Computer and Communications Security (CCS 2018)*, Toronto, Canada, October 15-19, 2018. [Acceptance rate:  $134/809 = 16.6\%$ ]
14. Yifang Li, Nishant Vishwamitra, Bart P. Knijnenburg, Hongxin Hu and Kelly Caine, “Effectiveness and Users’ Experience of Obfuscation as a Privacy-Enhancing Technology for Sharing Photos”, In *Proceedings of the 21st ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW 2018)*, Jersey City, NJ, USA, November 3-7, 2018. [Acceptance rate:  $105/384 = 27.3\%$ ]
15. Zhilong Zheng, Jun Bi, Haiping Wang, Chen Sun, Heng Yu, Hongxin Hu, Kai Gao and Jianping Wu, “Grus: Enabling Latency SLOs for GPU-Accelerated NFV Systems”, In *Proceedings of 26th IEEE International Conference on Network Protocols (ICNP 2018)*, Cambridge, UK, September 24-27, 2018. [Acceptance rate:  $35/196 = 17.9\%$ ]
16. Chen Sun, Jun Bi, Zili Meng, Xiao Zhang and Hongxin Hu, “OFM: Optimized Flow Migration for NFV Elasticity Control”, In *Proceedings of the 26th IEEE/ACM International Symposium on Quality of Service (IWQoS 2018)*, Banff, Alberta, Canada, June 4-6, 2018. [Acceptance rate:  $26/125 = 20.8\%$ ]
17. Younghee Park, Hongxin Hu, Xiaohong Yuan and Hongda Li, “Enhancing Security Education Through Designing SDN Security Labs in CloudLab”, In *Proceedings of the 49th ACM Technical Symposium on Computer Science Education (SIGCSE 2018)*, Baltimore, Maryland, USA, February 21-24, 2018. (**Best Paper Award**)
18. Guofei Gu, Hongxin Hu, Eric Keller, Zhiqiang Lin and Donald Porter, “Building a Security OS with Software Defined Infrastructure”, In *Proceedings of the 8th ACM SIGOPS Asia-Pacific Workshop on Systems (APSys 2017)*, IIT, Bombay, Indian, September 2-3, 2017.
19. Chen Sun, Jun Bi, Zhilong Zheng, Heng Yu and Hongxin Hu, “NFP: Enabling Network Function Parallelism in NFV”, In *Proceedings of the ACM SIGCOMM Conference (SIGCOMM 2017)*, Los Angeles, CA, USA, August 21-25, 2017. [Acceptance rate:  $36/250 = 14.4\%$ ]
20. Nishant Vishwamitra, Yifang Li, Kevin Wang, Hongxin Hu, Kelly Caine and Gail-Joon Ahn, “Towards PII-based Multiparty Access Control for Photo Sharing in Online Social Networks”, In *Proceedings of the 22nd ACM Symposium on Access Control Models And Technologies (SACMAT 2017)*, Indianapolis, IN, USA, June 21-23, 2017. [Acceptance rate:  $14/50 = 28.0\%$ ]
21. Juan Deng\*, Hongda Li\*, Hongxin Hu, Kuang-Ching Wang, Gail-Joon Ahn, Ziming Zhao and Wonkyu Han, “On the Safety and Efficiency of Virtual Firewall Elasticity Control”, In *Proceedings of the 24th Network and Distributed System Security Symposium (NDSS 2017)*, San Diego, California, February 26 - March 1, 2017 (\*co-first author). [Acceptance rate:  $68/423 = 16.1\%$ ]
22. Kang Chen, Ryan Izzard, Hongxin Hu, Kuangching Wang and James Martin, “HetSDN: Exploiting SDN for Intelligent Network Usage in Heterogeneous Wireless Networks”, In *Proceedings of IEEE/ACM International Symposium on Quality of Service (IWQoS 2016)*, Beijing, China, June 20-21, 2016.
23. Hitesh Padekar, Younghee Park, Hongxin Hu and Sang-Yoon Chang, “Enabling Dynamic Access Control for Controller Applications in Software-Defined Networks”, In *Proceedings of the 21st ACM Symposium on Access Control Models And Technologies (SACMAT 2016)*, Shanghai, China, June 5-8, 2016. (**Best Paper Honorable Mention Award**)

24. Wonkyu Han, Hongxin Hu, Ziming Zhao, Adam Doupé, Gail-Joon Ahn, Kuang-Ching Wang and Juan Deng, “State-aware Network Access Management for Software-Defined Networks”, In *Proceedings of the 21st ACM Symposium on Access Control Models And Technologies (SACMAT 2016)*, Shanghai, China, June 5-8, 2016.
25. Shuyong Zhu, Jun Bi, Chen Sun, Chenghui Wu and Hongxin Hu, “SDPA: Enhancing Stateful Forwarding for Software-Defined Networking”, In *Proceedings of the 23rd IEEE International Conference on Network Protocols (ICNP 2015)*, San Francisco, USA, November 10-13, 2015. [Acceptance rate: 38/187 = 20.3%] (**Best Paper Nominee**)
26. Yiming Jing, Ziming Zhao, Gail-Joon Ahn and Hongxin Hu, “Morpheus: Automatically Generating Heuristics to Detect Android Emulators”, In *Proceedings of the 30th Annual Computer Security Applications Conference (ACSAC 2014)*, New Orleans, LA, USA, December 8-12, 2014. [Acceptance rate: 47/236 = 19.9%] (**Finalist for CSAW 2015 Best Applied Security Paper Award**)
27. Hongxin Hu, Wonkyu Han, Gail-Joon Ahn and Ziming Zhao, “FlowGuard: Building Robust Firewalls for Software-Defined Networks”, In *Proceedings of ACM SIGCOMM Workshop on Hot Topics in Software Defined Networking (HotSDN 2014)*, Chicago, IL, USA, August 22, 2014. [Acceptance rate for full paper with long presentation: 16/114 = 14.0%]
28. Hongxin Hu, Gail-Joon Ahn, Ziming Zhao and Dejun Yang, “Game Theoretic Analysis of Multiparty Access Control in Online Social Networks”, In *Proceedings of the 19th ACM Symposium on Access Control Models And Technologies (SACMAT 2014)*, London, Ontario, Canada, June 25-27, 2014.
29. Yiming Jing, Gail-Joon Ahn, Ziming Zhao and Hongxin Hu, “RiskMon: Continuous and Automated Risk Assessment for Mobile Applications”, In *Proceedings of the 4th ACM Conference on Data and Application Security and Privacy (CODASPY 2014)*, San Antonio, TX, USA, March 3-5, 2014. [Acceptance rate: 19/119 = 16.0%] (**Best Paper Award**)
30. Ziming Zhao, Gail-Joon Ahn, Jeong-Jin Seo and Hongxin Hu, “On the Security of Picture Gesture Authentication”, In *Proceedings of the 22nd USENIX Security Symposium (USENIX Security 2013)*, Washington DC, August 2013. [Acceptance rate: 44/277 = 15.9%] (**Media Coverage: ACM TechNews, InformationWeek, WeLiveSecurity, NetworkWorld, SlashDot, SoftPedia, TechEYE, PCInfoSite, PCWorld, TechRadar, TechDigest, ThreatPost, WebRoot, TechNewzIE, SiloBreaker, Topix, Neowin, ITSecureSite, CreativeGroups, Sysnative, LifeattheMoment, ParityNews, etc**)
31. Ziming Zhao, Gail-Joon Ahn, Hongxin Hu and Deepinder Mahi, “SocialImpact: Systematic Analysis of Underground Social Dynamics”, In *Proceedings of the 17th European Symposium on Research in Computer Security (ESORICS 2012)*, Pisa, Italy, September 10-14, 2012. [Acceptance rate: 50/248 = 20.1%]
32. Yan Zhu, Hongxin Hu, Gail-Joon Ahn and Mengyan Yu, “Comparison-Based Encryption for Fine-grained Access Control in Clouds”, In *Proceedings of the 2nd ACM Conference on Data and Application Security and Privacy (CODASPY 2012)*, San Antonio, Texas, USA, February 7-9, 2012. [Acceptance rate: 21/113 = 18.6%]
33. Yan Zhu, Hongxin Hu, Gail-Joon Ahn, Dijiang Huang and Shanbiao Wang, “Towards Temporal Access Control in Cloud Computing”, In *Proceedings of the 31st IEEE International Conference on Computer Communications (INFOCOM 2012)*, Mini-conference, Orlando, Florida, USA, March 25-30, 2012. [Acceptance rate: 378/1547 = 24.4%]

34. Ruoyu Wu, Gail-Joon Ahn, and Hongxin Hu “Towards HIPPA-compliant Healthcare Systems”, In *Proceedings of the 2nd ACM SIGHIT International Health Informatics Symposium (IHI 2012)*, Miami, Florida, USA, January 28-30, 2012. [Acceptance rate for oral presentation:  $48/269 = 17.8\%$ ]
35. Hongxin Hu, Gail-Joon Ahn and Jan Jorgensen, “Detecting and Resolving Privacy Conflicts for Collaborative Data Sharing in Online Social Networks”, In *Proceedings of the 27th Annual Computer Security Applications Conference (ACSAC 2011)*, Orlando, Florida, USA, December 5-9, 2011. [Acceptance rate:  $39/195 = 20.0\%$ ]
36. Hongxin Hu, Gail-Joon Ahn and Ketan Kulkarni, “Anomaly Discovery and Resolution in Web Access Control Policies”, In *Proceedings of the 16th ACM Symposium on Access Control Models And Technologies (SACMAT 2011)*, Innsbruck, Austria, June 15-17, 2011. (**Best Paper Award Candidate**; CSAW AT&T Applied Security Research Best Paper Award Nominee).
37. Wenjuan Xu, Gail-Joon Ahn, Hongxin Hu, Xinwen Zhang and Jean-Pierre Seifert, “DRFT: Efficient Remote Attestation Framework for Dynamic Systems”, In *Proceedings of the 15th European Symposium on Research in Computer Security (ESORICS 2010)*, Athens, Greece, September 20-22, 2010. [Acceptance rate:  $42/201 = 20.8\%$ ]
38. Yan Zhu, Gail-Joon Ahn, Hongxin Hu and Huaixi Wang, “Cryptographic Role-based Security Mechanisms based on Role-Key Hierarchy”, In *Proceedings of the 5th ACM Symposium on Information, Computer and Communications Security (ASIACCS 2010)*, Beijing, China, April 13-16, 2010. [Acceptance rate:  $35/166 = 21\%$ ]
39. Jing Jin, Gail-Joon Ahn, Hongxin Hu, Michael Covington and Xinwen Zhang, “Patient-centric Authorization Framework for Sharing Electronic Health Records”, In *Proceedings of the 14th ACM Symposium on Access Control Models And Technologies (SACMAT 2009)*, Stresa, Italy, June 3-5, 2009.
40. Hongxin Hu and Gail-Joon Ahn, “Enabling Verification and Conformance Testing for Access Control Model”, In *Proceedings of the 13th ACM Symposium on Access Control Models And Technologies (SACMAT 2008)*, Estes Park, Colorado, USA, June 11-12, 2008. [Acceptance rate:  $20/79 = 25\%$ ]
41. Gail-Joon Ahn and Hongxin Hu, “Towards Realizing a Formal RBAC Model in Real Systems”, In *Proceedings of the 12th ACM Symposium on Access Control Models And Technologies (SACMAT 2007)*, Sophia Antipolis, France, June 20-22, 2007. [Acceptance rate:  $19/79 = 24\%$ ]

*Representative Journal Publications:*

42. Heng Yu, Zhilong Zheng, Junxian Shen, Congcong Miao, Chen Sun, Hongxin Hu, Jun Bi, Jianping Wu, Jilong Wang, “Octans: Optimal Placement of Service Function Chains in Many-Core Systems”, *IEEE Transactions Parallel and Distributed Systems (TPDS)*, 2021.
43. Zili Meng, Yaning Guo, Yixin Shen, Jing Chen, Chao Zhou, Minhu Wang, Jia Zhang, Mingwei Xu, Chen Sun, Hongxin Hu, “Practically Deploying Heavy-weight Adaptive Bitrate Algorithms With Teacher-Student Learning”, *IEEE/ACM Transactions on Networking (ToN)*, 2021.
44. Xincan Fei, Fangming Liu, Qixia Zhang, Hai Jin and Hongxin Hu, “Paving the Way for NFV Acceleration: A Taxonomy, Survey and Future Directions”, *ACM Computing Surveys (CSUR)*, Vol.53, August 2020.

45. Yuan Luo, Long Cheng, Hongxin Hu, Guojun Peng and Danfeng Yao, "Context-rich Privacy Leakage Analysis through Inferring Apps in Smart Home IoT", *IEEE Internet of Things Journal (IoTJ)*, 2020.
46. Juan Wang, Shirong Hao, Ru Wen, Boxian Zhang, Hongxin Hu and Rongxin Lu, "IoT-Praetor: Undesired Behaviors Detection for IoT Devices", *IEEE Internet of Things Journal (IoTJ)*, 2020.
47. Juan Wang, Shirong Hao, Hongxin Hu, Hongda Li, Wenhui Zhang, Jun Xu and Peng Liu, "S-Blocks: Lightweight and Trusted Virtual Security Function with SGX", *IEEE Transactions on Cloud Computing (TCC)*, 2020.
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72. Xiaohong Yuan, Zhipeng Liu, Younghee Park, Hongxin Hu and Hongda Li, “Teaching SDN Security Using Hands-on Labs in CloudLab”, In *Proceedings of the 23rd Colloquium for Information System Security Education* (CISSE 2019), Las Vegas, Nevada, USA June 10-12, 2019.
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74. Xiang Zhang, Nishant Vishwamitra, Hongxin Hu and Feng Luo, “CrescendoNet: A New Deep Convolutional Neural Network with Ensemble Behavior”, In *Proceedings of the 17th IEEE International Conference on Machine Learning and Applications* (ICMLA 2018), Orlando, Florida, USA, December 17-20, 2018.
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  98. Hongxin Hu, Gail-Joon Ahn and Jan Jorgensen, “Enabling Collaborative Data Sharing in Google+”, In *Proceedings of the 55th IEEE Global Communications Conference (GLOBECOM 2012)*, Anaheim, California, USA, December 3-7, 2012.
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122. Juan Wang, Jiang Wang, Hongyang Jiao, Yong Wang, Shiya Chen, Shihui Liu and Hongxin Hu, "OpenFlow-based Real-Time Conflict Detection and Resolution for SDN Access Control Policies", *Chinese Journal of Computers (CJC)*, Vol. 38, No. 4, April, 2015.
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125. Ruoyu Wu, Gail-Joon Ahn and Hongxin Hu, "Towards HIPAA-compliant Healthcare Systems in Cloud Computing", *International Journal of Computational Models and Algorithms in Medicine (IJCMAM)*, Special Issue on Privacy in Health Informatics, Vol. 3, No. 2, December, 2012.
126. Yan Zhu, Hongxin Hu, Gail-Joon Ahn, Yujing Han and Shimin Chen, "Collaborative Integrity Verification in Hybrid Clouds", *International Journal of Cooperative Information Systems (IJCIS)*, World Scientific, Vol. 21, No. 03, November, 2012. (Invited as one of best papers presented at CollaborateCom'11)
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*Posters/Demos:*

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133. Zili Meng, Jun Bi, Chen Sun, Anmin Xu and Hongxin Hu, “PRAM: Priority-aware Flow Migration Scheme in NFV Networks”, In *Proceedings of the ACM Symposium on SDN Research (SOSR 2017)*, Poster Session, Santa Clara, CA, April 3-4, 2017.
134. Chen Sun, Jun Bi, Zhilong Zheng and Hongxin Hu, “SLA-NFV: an SLA-aware High Performance Framework for Network Function Virtualization”, In *Proceedings of ACM SIGCOMM Conference (SIGCOMM 2016)*, Poster Session, Florianópolis, Brazil, August 22-26, 2016.
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*Books/Book Chapters:*

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140. Junqin Fan, Hongxin Hu, Sifa Zhang, “Guide on Computer Organization and Assembly Language”, *Higher Education Press*, Beijing, 2003.
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**TALKS**

1. “Poseidon: Mitigating Volumetric DDoS Attacks with Programmable Switches”, *NDSS 2020*.

2. “Rethinking Security for the Internet of Things (IoT)”, *University of Delaware*, 2020.
3. “Dynamic Defense of IoT Malware”, *VMWare*, 2019.
4. “Rethinking Security for the Internet of Things (IoT)”, *Wuhan University*, 2019.
5. “Rethinking Security for the Internet of Things (IoT)”, *University of Texas at Dallas*, 2019.
6. “vNIDS: Safe and Efficient Virtualization of Network Intrusion Detection Systems”, *VMWare*, 2018.
7. “Safety Control on IoT Device Physical Interaction”, *Tsinghua University*, 2018.
8. “Enabling Reliable Access Control in Modern Network and Information Systems”, *University of Texas at Arlington*, 2018.
9. “Network Security Function Virtualization (NSFV): Challenges and Solutions”, *Tsinghua University*, 2017.
10. “Network Security Function Virtualization (NSFV): Challenges and Solutions”, *Wuhan University*, 2017.
11. “Network Security Function Virtualization: Challenges and Solutions”, *NFV World Congress*, 2017.
12. “Securing Software Defined Networks: From Theory to Practice”, *SDN Security panel, IEEE CNS 2016*.
13. “Enabling Reliable Access Control for Emerging Networking Technologies”, *Tsinghua University*, 2016.
14. “Enabling Reliable Access Control for Emerging Networking Technologies”, *University of Science and Technology Beijing*, 2016.
15. “Enabling Reliable Access Control for Emerging Networking Technologies”, *China University of Geosciences*, 2016.
16. “Enabling Reliable Access Control for Emerging Networking Technologies”, *Wuhan University*, 2016.
17. “HetSDN: Exploiting SDN for Intelligent Network Usage in Heterogeneous Wireless Networks”, *IWQoS 2016*.
18. “Enabling Dynamic Access Control for Controller Applications in Software-Defined Networks”, *SACMAT 2016*.
19. “Virtualizing and Utilizing Network Security Functions for Securing Software Defined Infrastructure”, *NSF SDI/SDX Workshop*, 2016.
20. “NFV-enabled Security Mechanism”, *NFV World Congress*, 2016.
21. “Defending Against Visual Cyberbullying Attacks in Emerging Mobile Social Networks”, *NSF SaTC EAGER Workshop*, 2016.
22. “VNGuard: An NFV/SDN Combination Framework for Provisioning and Managing Virtual Firewalls”, *NFV-SDN 2015*.
23. “Building Robust Firewalls for Software-Defined Networks”, *CyberDNA Security Seminar, UNC Charlotte*, 2015.
24. “Defensive Maneuver Cyber Platform Modeling with Stochastic Petri Nets”, *CollaborateCom 2014*.
25. “Towards a Reliable SDN Firewall”, *2014 Open Networking Summit (ONS) Research Track*.

26. “Securing Software-Defined Networks”, *Faculty Workshop on Secure Software Engineering & Computer Science Retention sponsored by the U.S Department of Education*, 2013.
27. “Enabling Collaborative Data Sharing in Google+”, *GLOBECOM 2012*.
28. “Secure and Efficient Constructions of Hash, MAC and PRF for Mobile Devices”, *GLOBECOM 2012*.
29. “Detecting and Resolving Privacy Conflicts for Collaborative Data Sharing in Online Social Networks”, *ACSAC 2011*.
30. “Ontology-based Policy Anomaly Management for Autonomic Computing”, *CollaborateCom 2011*.
31. “Multiparty Authorization Framework for Data Sharing in Online Social Networks”, *DBSec 2011*.
32. “Firewall Policy Analysis for Autonomic Computing”, Poster, *IARE 2011*.
33. “FAME: A Firewall Anomaly Management Environment”, *SafeConfig 2010*.
34. “Efficient Provable Data Possession for Hybrid Clouds”, Poster, *CCS 2010*.
35. “Assurance Management Framework for Access Control”, Poster, *IARE 2010*.
36. “Enabling Verification and Conformance Testing for Access Control Model”, *SACMAT 2008*.

**SELECTED  
MEDIA  
COVERAGE**

- “Protecting privacy, preventing cyberbullying, and detecting hate speech with artificial intelligence”, *News Standard, Clemson University*, March 11, 2020. ([Link](#))
- “Securing cyberspace: Hongxin Hu develops new ways to protect computer networks”, *News Standard, Clemson University*, July 9, 2019. ([Link](#))
- “Clemson University cybersecurity research to be highlighted at top-tier security conference”, *News Standard, Clemson University*, July 30, 2018. ([Link](#))
- “Researchers Land \$3 Million to Build Cyberattack Defenses”, *News Standard, Clemson University*, June 6, 2017. ([Link](#))
- “Researchers Land \$3 Million to Build Cyberattack Defenses”, *ACM TechNews*, June 12, 2017. ([Link](#))
- “High schooler to assist Clemson professor in \$3M data security research project this summer”, *Independent Mail*, June 9, 2017. ([Link](#))
- “Clemson Professor to Research Cyberattack Defenses”, *GSA Business Report*, June 6, 2017. ([Link](#))
- “Clemson Researchers Land \$3 Million to Build Cyberattack Defenses”, *WSNW Radio*, June 7, 2017. ([Link](#))
- “Clemson University Computer Scientist to Present Research at Esteemed Security Conference”, *News Standard, Clemson University*, November 3, 2016. ([Link](#))
- “Clemson University app could help fight cyberbullying”, *News Standard, Clemson University*, August 19, 2015. ([Link](#))
- “Clemson developing app to take on bullies”, *The Post and Courier*, September 5, 2015. ([Link](#))
- “App could identify cyberbullying as it happens”, *Greenville (SC) News*, August 19, 2015. ([Link](#))
- “Clemson Team Making App to Fight Cyber Bullies”, *WSPA-TV*, August 19, 2015. ([Link](#))

- “Clemson developing app to combat cyberbullying”, *WHNS-TV*, August 19, 2015.([Link](#))
- “App in the works at Clemson to fight cyberbullying”, *WYFF4*, August 19, 2015.([Link](#))
- “Innovation Challenge Winners Demonstrate SDN Applications to Secure and Simplify Networks”, *Extreme Blog*, June 2, 2015.([Link](#))
- “Windows 8 Picture Passwords Easily Cracked”, *ACM TechNews*, September 4, 2013 ([Link](#))
- “Windows 8 Picture Passwords Easily Cracked”, *InformationWeek Dark Reading*, August 29, 2013. ([Link](#))
- “Researchers develop attack framework for cracking Windows 8 picture passwords”, *NetworkWorld*, September 5, 2013. ([Link](#))
- “Windows 8’s Picture Passwords Weaker Than Users Might Hope”, *Slashdot*, September 5, 2013. ([Link](#))
- “Windows Picture Passwords – are they really as ‘easily crackable’ as everyone’s saying?”, *NakedSecurity*, September 9, 2013. ([Link](#))
- “Windows 8 picture passwords ‘can be cracked’, researchers warn”, *WeLiveSecurity*, August 30, 2013. ([Link](#))
- “Picture passwords promising, security researcher says”, *PCWorld*, September 15, 2013.([Link](#))

**TEACHING  
EXPERIENCE**

*Instructor for Courses* July 2014 - Present  
 School of Computing, Clemson University

- Undergraduate/graduate Course: CPSC 4200/6200 - Computer Security Principles
- Graduate Course: CPSC 8570 - Security in Advanced Networking Technologies (**newly developed course**)
- Graduate Course: CPSC 8810 - Advanced Networking and Security
- Graduate Course: CPSC 8810/CPSC 8580 - Security in Emerging Computing and Networking Systems (**newly developed course**)

*Instructor for Courses* August 2012 - June 2014  
 Department of Computer and Information Sciences, Delaware State University

- Undergraduate Course: INFO-385 - Network Security
- Undergraduate Course: INFO-350 - Operating Systems
- Graduate Course: CSCI-510 - Advanced Operating Systems (**newly developed course**)
- Graduate Course: CSCI-520 - Advanced Computer Networking and Communications (**newly developed course**)

**POST-  
DOCTORAL  
RESEARCHERS**

- Kang Chen Sep 2014 - Aug 2015  
 First employment: **Assistant Professor**, Southern Illinois University
- Juan Deng Sep 2014 - Jul 2016  
 First employment: Senior Researcher, Huawei

## STUDENT ADVISING

### *Current Ph.D. Students:*

- Nishant Vishwamitra since May 2016
  - First-authored an **NDSS'21** paper
  - First-authored a **SACMAT'17** paper
  - Co-authored a **CHI'20** paper
  - Co-authored a **CSCW'18** paper
  - Received Talford Annual Fellowship award for 2018-2019
- Wenbo Ding since Jan 2017
  - First-authored an **NDSS'21** paper
  - First-authored a **CCS'18** paper
- Zhilong Zheng (Tsinghua University, co-advised) since May 2016
  - First-authored an **INFOCOM'19** paper
  - First-authored an **ICNP'18** paper
  - Co-authored a **SIGCOMM'17** paper
  - Co-authored an IEEE **JSAC** paper and an IEEE/ACM **TON** paper
- Zili Meng (Tsinghua University, co-advised) since May 2017
  - First-authored a **SIGCOMM'20** paper
  - First-authored an **ACM MM'19** paper
  - First-authored a **ICC'18** paper
  - Won the First Place in **SIGCOMM 2018** Student Research Competition (**SRC**).
  - First-authored an IEEE **JSAC** paper
  - Co-authored a **IWQoS'18** paper
  - Co-authored an IEEE **JSAC** paper
- Menghao Zhang (Tsinghua University, co-advised) since May 2018
  - First-authored an **NDSS'20** paper
  - First-authored an IEEE **JSAC** paper
- Feng Wei since May 2018
- Qiqing Huang since May 2020

### *Previous Ph.D. Students:*

- Hongda Li May 2015 - Aug 2020
  - First-authored a **CCS'18** paper
  - First-authored an **NDSS'17** paper
  - Co-authored an **ASIACCS'20** paper
  - Co-authored a SIGCSE'18 paper (**Best Paper Award**)
  - Received **Outstanding Ph.D. Student Award** in computer science
  - Received Talford Annual Fellowship award for 2018-2019
- Chen Sun (Tsinghua University, co-advised) May 2015 - Aug 2019
  - First-authored a **SIGCOMM'17** paper

- First-authored a **IWQoS’18** paper
- First-authored two IEEE **JSAC** papers and an IEEE/ACM **TON** paper
- Co-authored an **ICNP’18** paper
- Co-authored an **ICNP’15** paper (**Best Paper Nominee**)
- Received **Google PhD Fellowship** in Systems and Networking 2018
- Wonkyu Han (Arizona State University, co-advised) May 2013 - Aug 2016
  - First-authored a **SACMAT’16** paper and a DBSec’14 paper
  - Co-authored an **NDSS’17** paper and a HotSDN’14 paper
- Shuyong Zhu (Tsinghua University, co-advised) May 2014 - Aug 2016
  - First-authored an **ICNP’15** paper (**Best Paper Nominee**)
  - Co-authored an IEEE/ACM **TON** paper and an IEEE Network paper

*Current Undergraduate Students:*

- Martha Newton (REU Student) Apr 2018 - Present
- Tyreek Wilson (REU Student) Apr 2018 - Present

*Previous Undergraduate Students:*

- Maxwell Harley (REU Student) Aug 2017 - Feb 2018
- Nick Castro (REU Student) Sep 2017 - Feb 2018
- Wesley Knight (REU Student) Sep 2017 - Feb 2018
- Kevin Wang (REU Student) May 2016 - May 2017
  - Co-authored a SACMAT’17 paper
- Alexander Sferrella (REU Student) May 2016 - Apr 2017
- Jan Jorgensen (Arizona State University) May 2010 - May 2012
  - Co-authored an **ACSAC’11** paper and a GLOBECOM’12 paper
  - Co-authored an IEEE **TKDE** paper featured by the IEEE Special Technical Community on Social Networking

*High School Students:*

- Wyatt Dorris (D. W. Daniel High School, Central, SC) May 2019 - Present
- Jonathan Tong (D. W. Daniel High School, Central, SC) May 2016 - Apr 2017
  - Co-authored an IWSPA’17 paper and an ICMLA’17 paper
  - Studying in Computer Science at Cornell University
- Charlie Cao (Wootton High School, Rockville, MD) May 2017 - Jul 2017
- Kevin Feng (D. W. Daniel High School, Central, SC) Jun 2017 - Jul 2017

*Middle School Student:*

- Roger Hu (R C Edwards Middle School, Central, SC) Jun 2017 - Jul 2017

## INSTITUTIONAL SERVICE

- Search Committee for the C. Tycho Howle Endowed Chair of Collaborative Computing 2015 - 2017
- Clemson Cybersecurity Research Task Force 2016 - Present
- Faculty Search Committee for School of Computing 2015 - Present
- Equipment Committee for School of Computing 2014 - 2015
- Website Committee for School of Computing 2017 - Present
- PhD Thesis Committee
  - Adil Alshaim (Advisor: Dr. Jim Martin)
  - Jason Anderson (Advisor: Dr. Amy W. Apon)
  - Oluwakemi Hambolu (Advisor: Richard R. Brooks)
  - William Clay Moody (Advisor: Dr. Amy W. Apon)
  - Fan Yang (Advisor: Dr. Richard R. Brooks)
- Master's Thesis Committee
  - Emmanuel John (Advisor: Dr. Ilya Safro)
  - Udit Agarwal (Advisor: Dr. Amy W. Apon)

## PROFESSIONAL SERVICE

- Associate Editor:*
- IEEE Transactions on Dependable and Secure Computing (TDSC) 2020 - Present
  - Computers Security (COSE) 2020 - Present
  - Cybersecurity & Privacy. *Frontiers in Big Data* 2018 - Present

### *Guest Editor:*

- Special Issue of Security in Emerging Networking Technologies. *IEEE Transactions on Dependable and Secure Computing (TDSC)* 2017/2018
- Special Issue of Advances in Network Function Virtualization. *China Communications* 2018
- Special Issue of Adaptive Mobile Crowd Sensing Security for BYOD Convergence in Mobile Creative Research. *Mobile Information System* 2016
- Special Issue of Security & Privacy Mechanisms for Sensor Middleware and Application in Internet of Things (IoT). *International Journal of Distributed Sensor Networks* 2015
- Special Issue of TrustCol2014. *EAI Endorsed Transactions on Collaborative Computing* 2015

### *Proposal Panelist/Reviewer:*

- National Science Foundation (NSF) 2015, 2016, 2017, 2018, 2020
- Army Research Office (ARO) 2019
- Maryland Industrial Partnerships Program (MIPStrack) 2014

### *Conference/Workshop (Co-)Founder:*

- ACM International Workshop on Security in Software Defined Networks & Network Function Virtualization (SDN-NFV Security)
- IEEE International Workshop Big Data Security and Services (BigDataService)

*Program (Co-)Chair:*

- ACM International Workshop on Security in Software Defined Networks & Network Function Virtualization (SDN-NFV Security), 2016, 2017, 2018, 2019
- IEEE International Workshop Big Data Security and Services (BigDataService), 2017, 2018, 2019
- IEEE International Workshop on Trusted Collaboration (TrustCol), 2014, 2015, 2016

*Poster Chair:*

- ACM Conference on Data and Application Security and Privacy (CODASPY), 2018 - 2021

*Proceedings Chair:*

- ACM Conference on Data and Application Security and Privacy (CODASPY), 2017
- ACM Symposium on Access Control Models and Technologies (SACMAT), 2014, 2016, 2017, 2018, 2019, 2021

*Publicity Chair:*

- ACM Symposium on Access Control Models and Technologies (SACMAT), 2015

*Session Chair:*

- ACM Conference on Data and Application Security and Privacy (CODASPY), 2018
- ACM Symposium on Access Control Models and Technologies (SACMAT), 2017
- ACM Conference on Computer and Communications Security (CCS), 2014
- IEEE International Workshop on Trusted Collaboration (TrustCol), 2011

*Web Chair:*

- ACM Conference on Computer and Communications Security (CCS), 2014

*Technical Program Committee:*

- The AAAI Conference on Artificial Intelligence (AAAI), 2021
- The Web Conference (WWW), 2019, 2021
- Annual Computer Security Applications Conference (ACSAC), 2018, 2019, 2020, 2021
- ACM Symposium on Information, Computer and Communications Security (AsiaCCS), 2018, 2019, 2021
- ACM Conference on Security and Privacy in Wireless and Mobile Networks (WiSec), 2020
- ACM Conference on Data and Application Security and Privacy (CODASPY), 2018, 2021
- ACM Symposium on Access Control Models and Technologies (SACMAT), 2013, 2014, 2015, 2018, 2019, 2020
- IEEE Conference on Communications and Network Security (CNS), 2017, 2018, 2019, 2020

- IFIP Networking Conference (NETWORKING), 2019
- ACM SIGCOMM Workshop on Security in Softwarized Networks: Prospects and Challenges (SecSoN), 2018
- ACM SIGCOMM Workshop on Internet of Things Security and Privacy (IoT S&P), 2018
- ACM Symposium on Applied Computing (SAC), Internet of Things (IoT) track, 2018, 2019, 2020
- ACM International Workshop on Multimedia Privacy and Security (MPS), 2017, 2018
- International Conference on Privacy, Security and Trust (PST), 2017, 2018, 2019
- IEEE International Conference on Advanced and Trusted Computing (ATC), 2016, 2017, 2018
- International Conference on Information and Communications Security (ICICS), 2018
- IEEE International Conference on Cloud Networking (CloudNet), 2018, 2019, 2020
- IEEE International Conference on Smart City Innovations (SCI), 2018
- Workshop on Security and Privacy-Enhanced Big Data (SPEBD), 2018
- IEEE International Conference on Computer Communications and Networks (ICCCN), 2015, 2016, 2017, 2018, 2019
- IEEE INFOCOM CrossCloud Workshop (CrossCloud), 2014, 2016, 2017, 2018
- ACM Workshop on Internet of Things Security and Privacy (IoT S&P), 2017
- IEEE International Conference on Parallel and Distributed Systems (ICPADS), 2016
- IEEE Global Communications Conference (GLOBECOM), 2015
- International Conference on Computing and Network Communications (Co-CoNet), 2015
- Workshop on Action Languages, Process Modeling, and Policy Reasoning (ALPP), 2015
- IEEE ICNP CoolSDN Workshop (CoolSDN), 2014, 2015, 2016
- International Workshop on Access Control Policies, Models and Mechanisms (ACPM), 2014
- IEEE International Workshop on Trusted Collaboration (TrustCol), 2013
- International Symposium on Cyberspace Safety and Security (CSS), 2013
- International Conference on Mobile, Ubiquitous, and Intelligent Computing (MUSIC), 2013
- FTRA International Symposium on Advances in Cryptography, Security and Applications for Future Computing (ACSA-Summer), 2012

*Conference Paper Reviewer:*

- ACM Conference on Computer and Communications Security (CCS), 2005-2007, 2013, 2016, 2017, 2018, 2019, 2020
- ACM CHI Conference on Human Factors in Computing Systems (CHI), 2018
- European Symposium on Research in Computer Security (ESORICS), 2018

- ACM Symposium on Access Control Models And Technologies (SACMAT), 2005- 2013
- ACM Conference on Data and Application Security and Privacy (CODASPY), 2011 - 2013
- International World Wide Web Conferences (WWW)–Security and Privacy Track, 2009-2011
- ACM Symposium on Applied Computing (SAC)–Computer Security Track. 2006-2011
- ACM Symposium on InformAtion, Computer and Communications Security (AsiaCCS), 2006-2008

*Journal Paper Reviewer:*

- ACM Transactions on Privacy and Security
- ACM Transactions on Information and System Security
- ACM Transactions on Software Engineering and Methodology
- ACM Transactions on Internet Technology
- IEEE Transactions on Dependable and Secure Computing
- IEEE Transactions on Knowledge and Data Engineering
- IEEE/ACM Transactions on Networking
- IEEE Transactions on Information Forensics and Security
- IEEE Transactions on Services Computing
- IEEE Transactions on Network and Service Management
- IEEE Internet Computing
- Journal of Computer Security
- Computers & Security
- Security and Communication Networks
- IBM Journal of Research and Development
- International Journal of Information Security
- International Journal of Network Management
- Journal of Systems and Software
- Journal of Data & Knowledge Engineering
- Journal of Biomedical Informatics
- Journal of Organizational Computing and Electronic Commerce
- International Journal of Computer Systems Science and Engineering
- Security and Communication Networks
- IET Information Security
- Wireless Networks
- Cluster Computing
- Sensors
- Journal of Network and Computer Applications
- Journal of Computer Science and Technology