

Curriculum Vitae

Yong Wang

Professor
Associate Dean of Beacom Graduate Programs

Senior IEEE Member
ABET CAC (Computing Accreditation Commission) Commissioner

The Beacom College of Computer and Cyber Sciences
Dakota State University
Madison, SD 57042

Tel: 605-221 8193
E-mail: yong.wang@dsu.edu
<https://homepages.dsu.edu/yong-wang>

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1. Biographical Sketch

Dr. Yong Wang is a Professor in the Beacom College of Computer and Cyber Sciences at Dakota State University (DSU). He is currently the Associate Dean of Beacom Graduate Programs and a co-director of the PATRIOT (Protection and Threat Research for the Internet of Things) Lab at DSU. Dr. Wang received his Ph.D. degree in Computer Science from the University of Nebraska-Lincoln in 2007, B.S. and M.S.E degrees in Computer Science from the Wuhan University (China) in 1995 and 1998, respectively. Before he joined DSU in 2012, he had spent 10 years in telecommunication industry as a senior software engineer and a team leader.

Dr. Wang teaches graduate courses including Cryptography and Network Security, Theory of Computation, Parallel Programming, Wireless Security, and Mobile Communications and Advanced Network Security. He is the primary academic advisor for doctoral students in the Ph.D. Cyber Operations program. Dr Wang's goal as a teacher is to create opportunities for students inside and outside the classroom, engage students for learning in computer and cyber sciences, and help students succeed both academically and professionally.

Dr. Wang's research focuses on security and privacy issues in the Internet of Things (IoT), cloud computing, cyberinfrastructure, and machine learning. His research goal is to provide end-to-end trust and security for communication networks through vulnerability exploitation, risk mitigation, and security remediation. Over the past 10 years, Dr. Wang was involved in 11 successful proposals (10 PIs and 1 Co-PI) totaling over \$2.3MM in research. He has published 76 peer-reviewed papers in prestigious journals/conferences such as IEEE Globecom, IEEE ICC, IEEE Cloud, and Journal of Security and Communication Networks.

Here is a short summary of Dr Wang's achievements since he joined DSU in 2012:

- Teach 7 graduate courses in computer science and cybersecurity
- Involved in 11 successful proposals (10 PIs and 1 Co-PI) totaling over \$2.3MM including 5 NSF awards, 1 NSA award, and 2 state awards
- Received Merrill Hunter Award for Excellence in Research from Dakota State University in 2015
- A co-director of the PATRIOT Lab
- Published 80+ conference and journal papers
- Publications cited 2,666 times according to the Google Scholar
- Mentored 14 doctoral students who successfully passed their dissertation defenses and received their Ph.D. degrees
- An advisor for total 30 undergraduate students through the NSF REU program in 2019 and 2022
- Served as a faculty mentors for four new faculty members in the Beacom College
- Members of Graduate Council, IRB, and Admission Committees in the Beacom College
- A team chair and commissioner for ABET Computing Accreditation Commission

2. Education

2007 Ph.D. (CS) University of Nebraska, Lincoln, NE.
Dissertation: Key Management Protocols in Hybrid Wireless Sensor Networks.
Advisor: Prof. Byrav Ramamurthy.

1998 M.Eng. (CS) Wuhan University, Wuhan, P.R. China.
1995 B.Sc. (CS) Wuhan University, Wuhan, P.R. China.

3. Employment

2022 – Present Professor Dakota State University, Madison, SD.
Associate Dean of Beacom Graduate Programs
MS in Cyber Defense – Program Coordinator (Since Summer 2023)

2017 – 2022 Associate Professor Dakota State University, Madison, SD.
Ph.D. Cyber Operations - Program Coordinator (since June 2021)
PATRIOT Lab – Director

2012 – 2017 Assistant Research Professor Dakota State University, Madison, SD.
2007 – 2011 Senior software engineer/Manger Calient Networks, Santa Barbara, CA.
2003 – 2007 Teaching assistant University of Nebraska, Lincoln, NE.
2002 – 2003 Senior software engineer UTStarcom R&D Center, Shenzhen, China.
1998 – 2000 Senior software engineer ZTE Corporation, Shenzhen, China.

4. Awards

2015 Merrill Hunter Award for Excellence in Research at Dakota State University.
2007 Outstanding graduate teaching assistant awarded by the Department of Computer Science and Engineering, University of Nebraska-Lincoln.
2003-2007 Full scholarships for doctoral study at University of Nebraska-Lincoln.
1997 Outstanding graduate student scholarship awarded by the Wuhan University.
1994 Outstanding undergraduate research student awarded by the Wuhan University.
1992 Outstanding undergraduate student scholarship awarded by the Wuhan University.

5. Funding Record (Total: \$2,333,803)

1. “Practical Secure Smartphones: Techniques, Tools, and Applications”, DSU Doctoral Summer Seed Grant, \$10,000, June 2012 – August 2013. **Yong Wang (PI)**.
2. “Acquisition of Equipment to Establish MobiSec Lab for Research and Education at DSU”, South Dakota Performance Improvement Fund, \$79,950.00, August 2012 – May 2013; **Yong Wang (PI)**.
3. “MRI: Acquisition of an Online Banking System for Information Assurance Research”, NSF CNS1123220, \$400,000, September 2013 – August 2014. **Yong Wang (PI)**, Dianxiang Xu (Former PI), Joshua Pauli, Manghui Tu.
4. “RET Site in Cyber Security”, NSF CNS 1200648, \$500,000.00, May 1, 2012 – April 30, 2015. **Yong Wang (PI)**, Dianxiang Xu (Former PI), and Patrick Engebretson.
5. “MRI: Acquisition of Equipment to Establish Mobile Testing Infrastructure for Bring Your Own Device Research and Education”, NSF CNS 1337529, \$168,076.00, September 1, 2013 – August 31, 2016. **Yong Wang (PI)**.

6. “Privacy Impact Assessment in Social Networks”, DSU FRI Grant, \$2000.00, September 2013 – May 2014; **Yong Wang (PI)**.
7. “Establish Data Center Technology Lab at DSU for Cloud and Big Data Security”, South Dakota Performance Improvement Fund, \$90,000.00, Aug 2014 – May 2015; **Yong Wang (PI)**.
8. “Understanding the Relationship between MySanfordChart and the Utilization of Emergency Department and urgent Care Centers”, Sanford Data Collaboration, \$1,000, September 2016 – August 2017; **Yong Wang (PI)**.
9. “CyberTraining: CIP: North Central Region Cyber Training Center for Cybersecurity at Dakota State University”, NSF OAC 1730105, \$479,658, September 1, 2017 – August 31, 2020. Wayne Pauli (PI), **Yong Wang (Co-PI)**.
10. “REU Site in IoT Security”, NSF CNS 1852145, \$377,487, March 1, 2019 – February 28, 2022. **Yong Wang (PI)**, Ashley Podhradsky (Co-PI).
11. “Machine Learning Assisted Cloud-Based Continuous Learning Approach for IoT Device Identification”, NCAE-C-002-2021 Cybersecurity Research Innovation, \$245,632, 09/01/2021-08/31/2022, **Yong Wang (PI)**, Bhaskar Rimal (Co-PI).

6. Teaching Record

6.1. Courses

Couse Number	Name	Credit Hours	Term
CSC718	Operating Systems and Parallel Programming	3 credits	F 2013, F 2014, F 2015, F 2016, F 2017, F 2018, F 2019, F 2020, F 2021
CSC720	Theory of Computation	3 credits	S 2014, S 2015, S 2016, S 2017, S 2018, S 2019, S 2020, S 2021
CSC773	Mobile Communications and Advanced Network Security	3 credits	SU 2019, SU 2020, SU 2021
CSC890	Seminar: Research	1 credit	F 2022, S 2023, SU 2023, F 2023, S 2024
INFA723	Cryptography and Network Security	3 credits	S 2012, S 2013, S 2014, S 2015, S 2016, S 201, S 2018, S 2019, S 2020, S 2021
INFA751	Wireless Security	3 credits	F 2012, F 2013, F 2014, F 2015, F 2016, F 2017, F 2018, F 2019, F 2020, F 2021
INFA792	Special Topics	3 credits	SU 2014, SU 2018, SU 2019, SU2020, SU 2021
INFA791	Collaborative Cybersecurity Research	3 credits	F 2023

6.2. Dissertation/Thesis Supervised

Ph.D. Graduates (14 in total):

Student Name	Title	Degree	Term
Sandeep Lakkaraju	Dissertation: <i>Analysis of Healthcare Workflows in Accordance with Access Control Policies</i> Job: Clinical Informatics Specialist at Union County Health Foundation	D.Sc. (IS)	Fall 2015
Raj Kumar Nepali	Dissertation: <i>Leveraging Content, Context, and Social Attributes to Detect Malicious Short URLs in Online Social Networks</i> Job: Threat Hunter at Palo Alto Networks	D.Sc. (IS)	Fall 2016
Jason Nikolai	Dissertation: <i>Distributed Multi-component Approach and System for Enhanced Security of Public Infrastructure as a Service (IaaS) Cloud Computing Environments</i> Job: Advisory software Engineer at IBM Analytics, Rochester, Minnesota	D.Sc. (IS)	Fall 2016
Keith Jones	Dissertation: <i>Malgazer: An Automated Malware Classifier with Running Window Entropy and Machine Learning</i> Job: Senior Security Researcher at Corelight	Ph.D. (CO)	Spring 2019
Tareq Nasrallah, (co-advisor: Omar El-Gayar)	Dissertation: <i>Social Media Text Mining Framework for Drug Abuse: An Opioid Crisis Case Analysis</i> Job: Visiting Assistant Professor at Northeastern University	Ph.D. (IS)	Spring 2019
Jumani Blango	Dissertation: <i>Ednem: A Malware Detection Framework Based on Static and Dynamic Analysis</i> Job: Adjunct/Software Developer/Malware Researcher/Security Code Reviewer	Ph.D. (CO)	Spring 2020
Tarig Mudawi	Dissertation: <i>IoT-HASS: A Framework for Protecting Smart Home Environment</i> Job: Full-stack Developer at Xcenda	Ph.D. (CO)	Spring 2020
Melva Ratchford	Dissertation: <i>BYOD-INSURE: A Security Assessment Model for Enterprise BYOD</i> Job: Adjunct Assistant Professor at University of Maryland Global	Ph.D. (IS)	Summer 2020
Mohammd Nur	Dissertation: <i>Towards Identity Relationship Management for Internet of Things</i>	Ph.D. (CO)	Spring 2021

	Job: Adjunct Assistant Professor at University of Maryland Global		
Gerald Chikukwa	Dissertation: <i>A Consent Framework for the Internet of Things in the GDPR Era</i> Job: Security Engineer	Ph.D. (CO)	Spring 2021
Srinivasulu Vuggumudi	Dissertation: A False Sense of Security—Organizations Need a Paradigm Shift on Protecting Themselves against APTs Job: Senior Manager	Ph.D. (IS)	Spring 2022
Anthony Jairam	Dissertation: BAMBI: Bluetooth Access Management & Beacon Identification	Ph.D. (CO)	Spring 2023
Asif Siddiqui	Dissertation: SUTMS - Unified Threat Management Framework For Home Networks	Ph.D. (CD)	Fall 2023
Mark Lawrence	Dissertation: Second-Channel Authentication for IoT Security: Merging Trusted Devices with Acoustical Data Transfer	Ph.D. (CD)	Fall 2023

Master Graduate:

Student Name	Title	Degree	Term
Jeremias Eppler	Thesis: <i>Towards Improving the Security of Mobile Systems using Virtualization and Isolation using XEN and ARM 64-bit</i>	MSIA	Spring 2017

Currently, Dr. Wang serves dissertation committee chairs for:

Student Name	Topic	Degree
Kaushik Muthusamy Ragothaman	Access Control	Ph.D. in IS
Robert Cannistra	Security in Cyberinfrastructure	Ph.D. in CO
Bryan Ikei	IoT Security	Ph.D. in CO
Zishan Merza	Fuzz Testing	Ph.D. in CO
Kurt Jarvis	ZigBee Security	Ph.D. in CO
Raven Sims	CPS Security	Ph.D. in CO
Andrew Krammer	Reverse Engineering	Ph.D. in CS
Jennifer Schulte	Blockchain and Smart contract	Ph.D. in CS
Carson Koball	Machine Learning Security	Ph.D. in CS
Femi Asabi	Anonymization Assessment	Ph.D. in CD
Sam Aiello	5G Security	Ph.D. in CD

6.3. M.S. Students

The master students I worked with include, but are not limited to,

Bailey Belisario (MSCS), Elliot Kjerstad (MSCD), Zachary Quintana (MSCS), Jeremias Eppler (MSIA), Kofi Asamoah-Boadu (MSACS), Roqeeb Ozugha (MSIA), Sonell Raman (MSIS), Karthik Vangury (MSIS), Nikolai Penning (MSIA), Michael Hoffman (MSIA), Christen Hahn (MSACS), Kruttika Sutrave (MSACS), and Andrew Kramer (MSACS).

6.4. Undergraduate Students

Dr. Wang is the PI of the REU Site in IoT Security at Dakota State University between 2019 and 2022 (the REU site was postponed to a future year due to the pandemic). 10 undergraduate students are recruited each year to conduct cybersecurity projects on the Internet of Things. There will be total 30 undergraduates participating in the REU program at DSU by the end of the program. Dr. Wang works closely with these students and provides advising on both research and professional development.

Dr. Wang also works with undergraduate students outside the classroom during school years. The undergraduate students Dr. Wang advised include, but are not limited to,

Jackson Ryan (Network Security Seminar), Tyler Johnson (Network Security Seminar), Kyle Cosman (Network Security Seminar), Sebastian Smith (Network Security Seminar), Michael Luke (Network Security Seminar), Elliott Shoup-Owens (INSuRE, 2016), Michael Turbes (INSuRE, 2016), Jennifer Schulte (INSuRE, 2016), Riley Johnson (NSF CyberTraining Project, 2017), Michael Dundas (NSF CyberTraining Project, 2017), Tri Bui (NSF CyberTraining Project, 2017-2019), Khoi Nguyen (NSF CyberTraining Project, 2018-2019)

7. Publication Record

7.1. Dissertation

Yong Wang, "Key management protocols in hybrid wireless sensor networks" (January 1, 2007). ETD collection for University of Nebraska - Lincoln. Paper AAI3277703. <http://digitalcommons.unl.edu/dissertations/AAI3277703>

7.2. Book and Book Chapters

1. Sandeep Kumar Lakkaraju, Dianxiang Xu, and **Yong Wang**, A Contextual Model to Integrate Healthcare Workflows and Access Control Policies (010917-120853), *Book chapter in Handbook of Research on Emerging Perspectives on Healthcare Information Systems and Informatics*, IGI Global, 2018.
2. **Yong Wang** and Jason Nikolai, Key Management in CPS, *Book chapter in Security and Privacy in Cyber-Physical Systems: Foundations and Applications* (Hongbing, Song, Glenn A. Fink, Gilad L. Rosner, Sabina Jeschke), published by Wiley Co., November 2017.
3. **Yong Wang**, Byrav Ramamurthy, and Yuyan Xue, A Key Management Protocol for Wireless Sensor Networks with Multiple Base Stations, *In Handbook on Sensor Networks* (Yang Xiao, Hui Chen and Frank H. Li, eds), published by World Scientific Publishing Co., 2010.
4. **Yong Wang**, Garhan Attebury, and Byrav Ramamurthy, Security in Wireless Sensor Networks, *Book chapter in Security in Wireless Mesh Networks* (Yan Zhang, Jun Zheng and Honglin Hu, eds.), published by Auerbach Publications, CRC Press, 2008.
5. Author: K. S. Siyan, P. Rybaczkyk, and P. Kuo Translator: Yudan Wan, **Yong Wang**, and Hansheng Lin, *Internetworking with NetWare TCP/IP*. 1st ed. Tsinghua University Press, Beijing, China, ISBN 7-302-02506-1/TP·1268, 1997.
6. Xianggang Wang, **Yong Wang**, and Yudan Wan, *Netware 3.X Kernel Internals Depth Analysis: for Server*. 1st ed. Tsinghua University Press, Beijing, China, ISBN 7-302-02516-9/TP·1273, 1996.

7. Wenping Jiang, Yudan Wan, and **Yong Wang**, *Netware 3.X Kernel Internals Depth Analysis: for Workstation*. 1st ed. Tsinghua University Press, Beijing, China, ISBN 7-302-02464-2/TP·1254, 1996.

7.3. Journal Articles

8. Carson Koball, Bhaskar P Rimal, **Yong Wang**, Tyler Salmen, Connor Ford, IoT Device Identification Using Unsupervised Machine Learning, *Information* 2023, 14(6), 320; <https://doi.org/10.3390/info14060320>.
9. Kaushik Muthusamy Ragothaman, **Yong Wang**, Bhaskar Rimal, and Mark Lawrence, Access Control for IoT: A Survey of Existing Research, Dynamic Policies and Future Directions, *Sensors*, 23, no. 4: 1805 (2023). <https://doi.org/10.3390/s23041805>
10. Srinivasulu Vuggumudi, **Yong Wang**, Jun Liu, Cherie Noteboom, and Kaushik Ragothaman, A False Sense of Security—Organizations Need a Paradigm Shift on Protecting Themselves against APTs, *International Journal of Contemporary Research and Review*, 13(07), 21851-21867(2022).
11. Bhaskar Rimal, Cuiyu Kong, Bikrant Poudel, **Yong Wang**, Pratima Shahi, Smart Electric Vehicle Charging in the Era of Internet of Vehicles, Emerging Trends, and Open Issues. *Energies*. 2022; 15(5):1908. <https://doi.org/10.3390/en15051908>
12. Samuel Heuchert, Bhaskar Prasad Rimal, Martin Reisslein, and **Yong Wang**, Design of a small-scale and failure-resistant IaaS cloud using OpenStack, *Applied Computing and Informatics*, September 30, 2021.
13. Melva Ratchford, Omar El-Gayar, Cherie Noteboom, and **Yong Wang**, BYOD Security Issues: A Systematic Literature Review, *Information Security Journal: A Global Perspective*, July 24, 2021.
14. Tareq Nasralah, Omar El-Gayar, and **Yong Wang**, Social Media Text Mining Framework for Drug Abuse: An Opioid Crisis Case Analysis, *Journal of Medical Internet Research*, vol. 22, no. 8. 2020.
15. Srinivasulu Vuggumudi and Yong Wang, Sophisticated Tools Alone Cannot Prevent Advanced Persistent Threats: What's Next? *Information Systems Security Association Journal*, vol. 18, no. 6, June 2020.
16. Sulabh Bhattarai and **Yong Wang**, End-to-End Trust and Security for Internet of Things Applications, *IEEE Computer*, April 2018.
17. Sandeep Lakkaraju, Dianxiang Xu, **Yong Wang**, Analysis of Healthcare Workflows in Accordance with Access Control Policies, the *International Journal of Healthcare Information Systems and Informatics (IJHISI)*, 11(1)1-20, 2016.
18. **Yong Wang**, Kevin Streff, Sonell Raman, Smartphone Security Challenges, *IEEE Computer*, December 2012.
19. Yuyan Xue, Byrav Ramamurthy, **Yong Wang**, LTRS: A Loss-Tolerant Reliable Event Sensing Protocol for Wireless Sensor Networks, *Journal of Computer Communications*, 2009.
20. **Yong Wang**, Byrav Ramamurthy, Xukai Zou, and Yuyan Xue, An Efficient Key Revocation Scheme for Wireless Sensor Networks, *Journal of Security and Communication Networks*, December 2008.
21. **Yong Wang**, Garhan Attebury, and Byrav Ramamurthy, A Survey of Security Issues in Wireless Sensor Networks, *IEEE Communications Surveys and Tutorials*, vol. 8, no. 2, pp. 2-23, 2006.

22. Jianzhan Yang, **Yong Wang**, and Xing Yi, Generating Strong Primes Study in RSA Cryptosystem, *Journal of Wuhan University (Natural Science Edition)*, vol. 45, no. 3, pp. 303-306, 1999.
23. **Yong Wang**, Xing Yi, and Jianzhan Yang, RSA Public Key Cryptography Key Generation Study, *Application Research of Computers*, vol. 82, no.2, pp. 229-232, 1998.
24. Xing Yi, Jianzhan Yang, and **Yong Wang**, How to Integrate a Network Cryptographic System based on the Asymmetric Cryptography. *Computer Engineering*, vol.24, no. 5, pp. 52-55,1998.
25. **Yong Wang**, Xiaoxing Ruan, and Xing Yi, Memory Management in Windows, *Application Research of Computers*, vol. 82, no.2, 1998.
26. **Yong Wang** and Jianzhan Yang, The Multi-task Polling Algorithm in Novell NetWare 386 OS, *Computer and Communications*, vol. 16, no.1, pp. 26-29, 1998.
27. Xianggang Wang, Wenping Jiang, **Yong Wang**, and Yudan Wan, Disk File System Management in Novell NetWare V3.11, *Microcomputer*, vol. 17, no.3, pp. 36-38, 1997.
28. Xianggang Wang, **Yong Wang**, Wenping Jiang, and Yudan Wan, Process Management in Novell NetWare 386 V3.11, *Microcomputer*, vol. 17, no. 2, pp. 7-9,1997.

7.4. Conference and Workshop Papers

29. Anthony Jairam and **Yong Wang**, Community-Sourced Bluetooth Low Energy Device Fingerprinting Based on Link Layer Packets, *IEEE Consumer Communications & Networking Conference (CCNC)*, 6–9 January 2024, Las Vegas, NV, USA.
30. **Yong Wang**, Bhaskar P. Rimal, Carson Koball, Michael Fahnlander, Julia Scheaffer, Joshua Hammrich, Paolo Gentry, Dylan Westlund, Tyler Salmen, and Connor Ford, A Comprehensive Study of Supervised Machine Learning Assisted Approaches for IoT Device Identification, *International Conference on Computing, Networking and Communications (ICNC 2024)*, February 19-22, 2024, Big Island, Hawaii, USA.
31. Kai Taylor, Alexandra Smith, Adam Zimmel, Korina Alcantara, and **Yong Wang**, Medical Device Security Regulations and Assessment Case Studies, *the 8th National Workshop for REU Research in Networking and Systems (REUNS 2022)*, Denver, Colorado, October 20 - 22, 2022. (Best Paper Runner Up Award)
32. Giridhar Reddy Bojja, Jun Liu, Ronghua Shan, and **Yong Wang**, CEO’s Communication Styles and their Effect on Organizational Performance, *AMCIS*, August 10-14, 2022.
33. Srinivasulu Vuggumudi, **Yong Wang**, Kaushik Ragothaman, Cherie Noteboom and Jun Liu, Towards a Comprehensive Strategy to Mitigate False Sense of Security, *MWAIS 2022*, Omaha, Nebraska, May 16-17, 2022.
34. Srinivasulu Vuggumudi, Kaushik Ragothaman, and **Yong Wang**, Compliance Based Penetration Testing as a Service, *MWAIS 2022*, Omaha, Nebraska, May 16-17, 2022.
35. **Yong Wang**, Bhaskar P. Rimal, Mark Elder, Sofia I. Crespo Maldonado, Helen Chen, Carson Koball, and Kaushik Ragothaman, IoT Device Identification Using Supervised Machine Learning, *2022 IEEE International Conference on Consumer Electronics (ICCE)*, Jan 7-9, 2022.
36. Mohammad Nur and **Yong Wang**, Identity Relationship Management for Internet of Things: A Case Study, *2022 IEEE International Conference on Consumer Electronics (ICCE)*, Jan 7-9, 2022.
37. Kaushik Muthusamy Ragothaman, **Yong Wang**, and Srinivasulu Vuggumudi, Towards Automated Policy Generation for Dynamic Access Control in the Internet of Things, *AMCIS*, August 9-13, 2021.

38. Mohammad Nur and **Yong Wang**, An Overview of Identity Relationship Management in the Internet of Things, *2021 IEEE International Conference on Consumer Electronics (ICCE)*, Jan 10-12, 2021.
39. **Yong Wang**, Kaushik Muthusamy Ragothaman, and Bijay Shakya, Towards Trusted Data Processing for Information and Intelligence Systems, *Hawaii International Conference on System Sciences (HICSS-54)*, Kauai, Hawaii, January 5-8, 2021.
40. Kaushik Muthusamy Ragothaman and **Yong Wang**, A Systematic Mapping Study of Access Control in the Internet of Things, *Hawaii International Conference on System Sciences (HICSS-54)*, Kauai, Hawaii, January 5-8, 2021.
41. Melva M. Ratchford, **Yong Wang**, Cherie Noteboom, and Omar El-Gayar, BYOD-Insure vs Existing Modalities for BYOD Security Assessment: A Comparison Study, *AMCIS*, August 12-16, 2020.
42. **Yong Wang**, Elliot Kjerstad, and Bailey Belisario, A Dynamic Analysis Security Testing Infrastructure for Internet of Things, *Sixth Conference on Mobile and Secure Services*, Miami, Florida, Feb 22-23, 2020.
43. Keith Jones and **Yong Wang**, Malgazer: An Automated Malware Classifier With Running Window Entropy and Machine Learning, *Sixth Conference on Mobile and Secure Services*, Miami, Florida, Feb 22-23, 2020.
44. Tareq Nasrallah, Omar El-Gayar, and **Yong Wang**, What Social Media Can Tell Us About Opioid Addicts: Twitter Data Case Analysis, *AMCIS*, Cancun Mexico, August 15-17, 2019.
45. Kevin Callies, Cherie Noteboom, Daniel Talley and **Yong Wang**, Employee Acceptance of Employer Control Over Personal Devices, *AMCIS*, Cancun Mexico, August 15-17, 2019.
46. Kevin Callies, Cherie Noteboom, Daniel Talley and **Yong Wang**, Employee Acceptance of Employer Control Over Personal Devices – Research in Progress, *14th Annual Conference: Midwest Association for Information Systems*, Oshkosh, WI, May 21 and 22, 2019.
47. Kevin Wafula and **Yong Wang**, CARVE: A Scientific Method-Based Threat Hunting Hypothesis Development Model, *19th Annual IEEE International Conference on Electro Information Technology*, Brookings, South Dakota, USA, May 20-22, 2019.
48. Melva M. Ratchford and **Yong Wang**, BYOD-Insure: A Security Assessment Model for Enterprise BYOD, *Fifth Conference on Mobile and Secure Services*, Miami, Florida, Mar 2-3, 2019.
49. Tareq Nasrallah, Abdullah Wahbeh, Cherie Noteboom, and **Yong Wang**, Geographic Variations and The Utilization of Health Care Resources, *AMCIS*, August 2018.
50. **Yong Wang**, CS4A: A New Approach for Cybersecurity Workforce Development, *New Approaches to Cybersecurity Education (NACE) Workshop*, New Orleans, Louisiana, June 9-10, 2018.
51. Keith Jones and **Yong Wang**, An Optimized Running Window Entropy Algorithm, *the National Cyber Summit*, Huntsville, AL, June 5-7, 2018.
52. Jeremias Eppler and **Yong Wang**, Towards Improving the Security of Mobile Systems using Virtualization and Isolation, *Fourth Conference on Mobile and Secure Services*, Miami, Florida, February 24-25, 2018.
53. Tareq Allan and **Yong Wang**, The Demand for Technical Safeguards in the Healthcare Sector: A Historical Perspective Enlightens Deliberations about the Future, *2017 Americas Conference on Information Systems*, Boston, MA, 2017.
54. Ali Ahmed, Tareq Nasrallah, **Yong Wang**, etc., Impact of E-Visits on Emergency Departments and Urgent Care Centers, *2017 Americas Conference on Information Systems*, Boston, MA, 2017.

55. Jason Nikolai and **Yong Wang**, A System for Detecting Malicious Insider Data Theft in IaaS Cloud Environments, *IEEE Globecom*, Washington, DC, USA, December 4-8, 2016.
56. **Yong Wang** and Jun Liu, An Attribute-based Statistic Model for Privacy Impact Assessment, *the 2016 International Conference on Collaboration Technologies and Systems (CTS 2016)*, Orlando, Florida, USA, Oct 31-Nov 4, 2016.
57. Jason Nikolai and **Yong Wang**, A Streaming Intrusion Monitoring and Classification System for IaaS Cloud, *IEEE Cloud*, San Francisco, CA, USA, June 27-July 2, 2016.
58. **Yong Wang**, Christen Hahn, and Kruttika Sutrave, Mobile Payment Security, Threats, and Challenges, *Second Conference on Mobile and Secure Services*, Gainesville, Florida, February 26-27, 2016.
59. Raj Kumar Nepali and **Yong Wang**, You Look Suspicious!/: Leveraging visible attributes to classify malicious short URLs on Twitter, *Hawaii International Conference on System Sciences (HICSS-49)*, Kauai, Hawaii, January 5-8, 2016.
60. Yazan Alshboul, **Yong Wang**, and Raj Kumar Nepali, Big Data Life Cycle: Threats and Security Model, *2015 Americas Conference on Information Systems*, Puerto Rico, 2015.
61. Raj Kumar Nepali, **Yong Wang**, and Yazan Alshboul, Detecting Malicious Short URLs on Twitter, *2015 Americas Conference on Information Systems*, Puerto Rico, 2015.
62. **Yong Wang**, and Raj Nepali, Privacy Impact Assessment for Online Social Networks, *the 2015 International Conference on Collaboration Technologies and Systems (CTS 2015)*, Atlanta, Georgia, USA, June 1-5, 2015.
63. **Yong Wang**, and Raj Nepali, Privacy Threat Modeling Framework for Online Social Networks, *the 2015 International Conference on Collaboration Technologies and Systems (CTS 2015)*, Atlanta, Georgia, USA, June 1-5, 2015.
64. **Yong Wang** and Yazan Alshboul, Mobile Security Testing Approaches and Challenges, *First Conference on Mobile and Secure Services*, Gainesville, Florida, February 19-21, 2015.
65. **Yong Wang**, An Automated Virtual Security Testing Platform for Android Mobile Apps, *First Conference on Mobile and Secure Services*, Gainesville, Florida, February 19-21, 2015.
66. Santiago Gimenez Ocano, Byrav Ramamurthy and **Yong Wang**, Remote Mobile Screen (RMS): An Approach for Secure BYOD Environments, *2015 International Conference on Computing, Networking and Communication (ICNC)*, Anaheim, California, USA, February 16-19, 2015.
67. Raj Nepali and **Yong Wang**. SocBridge: Bridging the gap between Online Social Networks, *Twentieth Americas Conference on Information Systems*, Savannah, Georgia, 2014.
68. Jason Nikolai, **Yong Wang**, and Raj Nepali, A Framework for Examining the Human Side of Anti-Forensic Measures, *Twentieth Americas Conference on Information Systems*, Savannah, Georgia, 2014.
69. **Yong Wang**, Karthik Vangury, and Jason Nikolai, MobileGuardian: A Security Policy Enforcement Framework for Mobile Devices, *the 2014 International Conference on Collaboration Technologies and Systems (CTS 2014)*, Minneapolis, Minnesota, USA, May 19-23, 2014.
70. Nicholas Penning, Michael Hoffman, Jason Nikolai, and **Yong Wang**, Mobile Malware Security Challenges and Cloud-Based Detection, *the 2014 International Conference on Collaboration Technologies and Systems (CTS 2014)*, Minneapolis, Minnesota, USA, May 19-23, 2014.

71. Jason Nikola and **Yong Wang**, Hypervisor-based Cloud Intrusion Detection System, *2014 International Conference on Computing, Networking and Communication (ICNC), CNC Workshop*, Honolulu, Hawaii, USA, Feb 3-6, 2014.
72. **Yong Wang**, Raj K Nepali, and Jason Nikolai, Social Network Privacy Measurement and Simulation, *2014 International Conference on Computing, Networking and Communication (ICNC), CNC Workshop*, Honolulu, Hawaii, USA, Feb 3-6, 2014.
73. **Yong Wang**, Jinpeng Wei, and Karthik Vangury, Bring Your Own Device Security Issues and Challenges, *The 11th Annual IEEE Consumer Communications & Networking Conference*, Las Vegas, Nevada USA, Jan 10-13, 2014.
74. **Yong Wang** and Raj Kuman Nepali, Privacy Measurement for Social Network Actor Model, *The 5th ASE/IEEE International Conference on Information Privacy, Security, Risk and Trust*, Washington D.C., USA, Sept 8-14, 2013.
75. Raj Kumar Nepali and **Yong Wang**, SONEt: A Social Network Model for Privacy Monitoring and Ranking, *The 2nd International Workshop on Network Forensics, Security and Privacy*, July 08, 2013.
76. **Yong Wang**, Byrav Ramamurthy, and Yuyan Xue, A Security Framework for Wireless Sensor Networks Utilizing a Single Key, in *BroadNets'08: Proceedings of Fifth International Conference on Broadband Communications, Networks, and Systems*, London, UK, September 2008.
77. **Yong Wang**, Byrav Ramamurthy, and Yuyan Xue, A Key Management Protocol for Wireless Sensor Networks with Multiple Base Stations, in *ICC'08: Proceedings of IEEE International Conference on Communications*, Beijing, China, June 2008.
78. Yuyan Xue, Byrav Ramamurthy, and **Yong Wang**, Providing Loss Tolerant Reliable Data Transport Services on Wireless Sensor Networks, in *ICC'08: Proceedings of IEEE International Conference on Communications*, Beijing, China, June 2008.
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80. **Yong Wang** and Byrav Ramamurthy, Layered Clustering Communication Protocol for Wireless Sensor Networks, *Proceedings of ICCCN Workshop on Advanced Networking and Communications*, Honolulu, Hawaii, August 2007.
81. **Yong Wang** and Byrav Ramamurthy, Centralized Group Rekeying Scheme for Secure Group Communication in Wireless Sensor Networks, in *ICC'07: Proceedings of IEEE International Conference on Communications*, Glasgow, Scotland, June 2007.
82. **Yong Wang**, Byrav Ramamurthy, and Xukai Zou, KeyRev: An Efficient Key Revocation Scheme for Wireless Sensor Networks, in *ICC'07: Proceedings of IEEE International Conference on Communications*, Glasgow, Scotland, June 2007.
83. **Yong Wang** and Byrav Ramamurthy, A Centralized Group Rekeying Scheme for Secure Group Communication in Wireless Sensor Networks (poster), *SECURECOMM'06: 2nd International Conference on Security and Privacy in Communication Networks*, Baltimore/MD, August 2006.
84. **Yong Wang** and Byrav Ramamurthy, The Performance of Elliptic Curve Based Group Diffie-Hellman Protocols for Secure Group Communication over Ad Hoc Networks, in *ICC'06: Proceedings of IEEE International Conference on Communications*, Istanbul, Turkey, May 2006.
85. **Yong Wang** and Byrav Ramamurthy, CPQ: A Control Packet Queuing Optical Burst Switching Protocol for Supporting QoS, *Proceedings of 3rd International Workshop on*

Optical Burst Switching (WOBS), co-located with BroadNets 2004, San Jose/CA, October 2004.s

7.5. Technical Reports

86. **Yong Wang**, Byrav Ramamurthy, Yuyan Xue, and Xukai Zou. uKeying: A Key Management Framework for Wireless Sensor Networks Utilizing a Unique Session Key, *CSE Technical reports*, TR-UNL-CSE-2007-0019, University of Nebraska Lincoln 2007.

8. Service Record

8.1. University Service

- Ph.D. Cyber Operations, Program Coordinator, June 2021-Present
- Beacom Faculty Mentor, 2018-Present
- DSU Institutional Review Board, Fall 2018-Present
- DSU Faculty Award Selection Committee, Spring 2016-Present
- DSU Graduate Council, Fall 2013-Present
- DSU MSCD Graduate Student Application Committee, Fall 2012-Present
- DSU MSCS Graduate Student Application Committee, Fall 2013-Present
- Beacom Faculty Search Committee, Spring 2020
- DSU Research Committee, Fall 2013-Spring 2019
- DSU Diversity Committee, Fall 2015-Spring 2018
- Member of COC Dean Search Committee, Fall 2016-Spring 2017
- Member of COC Faculty Search Committee, Fall 2016-Spring 2017
- Member of COC Dean Search Committee, Fall 2015-Summer 2016
- SDBOR System Intellectual property Council, 2015
- DSU MSACS Program Coordinator, Fall 2013-Spring 2015
- Member of CSC/Security Search Committee, Spring 2014
- Member of SPO Search Committee, Fall 2014

8.2. External Service

- ABET Computing Accreditation Commission (CAC) Program Evaluator, since 2018
- Served as a Co-chair for the Cybersecurity and big data working group in the Middle West Big Data Hub.
- Served as Technical Program Committee member for over 40 conferences/workshops including IEEE ICC, IEEE Globecom, and ICNC.
- Served as reviewer for over 10 journals including IEEE Transactions on Computational Social Systems, IEEE Transactions on Industrial Informatics, IEEE Access, and IEEE Computer.
- Served as a reviewer/panelist for the US National Science Foundation (NSF).
- Served as a proposal reviewer for Loire Valley Institute for Advanced Studies, France
- Served as poster co-chair for the 15th IEEE International Conference on Mobile Ad-hoc and Sensor Systems (MASS) in 2018.

8.2.1. Other External Service

- Editorial Review Board, IGI Global International Journal of Healthcare Information Systems and Informatics (IJHISI)
- Guest editor, special issue on “Trust, Security and Privacy Issues in Body Area Networks for Healthcare Applications” in the Security and Communication Networks Journal (Publish jointly by Wiley and Hindawi).
- Invited speaker, the South Dakota Chapter of HIMSS meeting in Sioux Falls, May 2nd, 2018.
- External examiner for a thesis entitled “Cybersecurity Challenges and Practices: A Case Study of Bhutan” submitted by Pema CHOJEY for the degree of Doctoral of Information Technology at Murdoch University, Australia, 2018.
- Invited speaker, the 2016 International Conference on Collaboration Technologies and Systems (CTS 2016), Oct 31-Nov 4, Orlando, Florida, USA.
- External examiner for a thesis entitled “A framework for investigating, assessing, understanding and controlling the information security risks in BYOD environments” submitted by Abubakar Garba Bello for the degree of Doctoral of Information Technology at Murdoch University, Australia, 2016.
- Technical support, PlanetLab UNL site, 2004.
- Judge: ACM North Central North America Regional Programming Contest, 2004.

9. Professional Memberships

- Senior Member, Institute of Electrical and Electronics Engineers (IEEE), May 2022 - Present
- Member, Institute of Electrical and Electronics Engineers (IEEE), Mar 2004- April 2022
- Member, IEEE Communications Society (IEEE ComSoc)
- PEV, ABET CAC (2018-2022)
- Commissioner, ABET CAC (2023 – present)