

Chen Zhong

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## INTEREST

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My research interests span the areas of cybersecurity (security analytics, intrusion detection, cyber situation awareness), artificial intelligence (knowledge representation and engineering), human-machine teaming, and data analysis.

## EDUCATION

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Pennsylvania State University, University Park, Pennsylvania USA

**Ph.D, Information Sciences and Technology** May 2016

Advisor: Peng Liu, Co-Advisor: John Yen

Thesis: "A Cognitive Process Tracing Approach to Cybersecurity Data Triage Operations Automation"

**Graduate Minor, Applied Statistics** 2014

Nanjing University, Nanjing, China

**Bachelor of Science, Computer Science and Technology** 2011

## ACADEMIC EXPERIENCE

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*Assistant Professor* Aug, 2020 - Present  
Cybersecurity, Department of Information Technology Management, University of Tampa, Florida, USA

*Assistant Professor* Aug, 2016 - May, 2020  
Informatics and Computer Science, School of Science, Indiana University Kokomo, Indiana, USA

*Research Assistant* Aug, 2011 - May, 2016  
College of Information Sciences and Technologies, Pennsylvania State University, Uni-

University Park, Pennsylvania USA

*Teaching Assistant*

Sep, 2015 - Dec, 2015

Information Sciences and Technologies, Pennsylvania State University, University Park, Pennsylvania USA

## ACADEMIC HONORS AND AWARDS

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Indiana University Trustees Teaching Award	2019
Indiana University Kokomo Summer Faculty Fellowship	2019
Women in Cybersecurity (WiCys) Faculty Scholarship	2018
Grace Hopper Faculty Scholarship	2017
Indiana University Kokomo Summer Faculty Fellowship	2017
(ISC) <sup>2</sup> Foundation Graduate Scholarship	2015
1 <sup>st</sup> Place in Engineering, Graduate Exhibition, Pennsylvania State University	2015
HotSoS Conference Student Travel Award	2015
CogSIMA Conference Student Travel Awards	2015, 2014
Grace Hopper Scholarship of Women in Computing	2013
IEEE VAST Challenge 2013 Honorable Mention	2013
Scholarship of 14 Inst. of China Electronics Technology Corp. (Awarded to top 1%)	2011
National Undergraduate Innovation Grant, China's Ministry of Education	2010
National Scholarship, China's Ministry of Education (Awarded to top 1%)	2010
Outstanding Student Awards, Nanjing University, China	2010
National Scholarship, China's Ministry of Education (Awarded to top 1%)	2009
Outstanding Student Awards, Nanjing University, China	2009
National Scholarship, China's Ministry of Education (Awarded to top 1%)	2008
Outstanding Student Awards, Nanjing University, China	2008

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2008

2008-2008

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## Students' Awards

Grace Hopper Celebration (GHC) Student Scholarship	2018
Women in Cybersecurity Student(WiCys) Scholarship	2019, 2018
Best Poster Award of IUK Research Symposium	2018
Travel Award for Presenting at National Conferences on Undergraduate Research (NCUR)	2018
Best Poster Award of IUK Research Symposium	2017
Travel Award for Presenting at NCUR	2017

## PUBLICATIONS

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[U]:Under submission or Under preparation, [J]:Journal, [C]:Conference proceeding, [BC]:Book chapter, [T] thesis, \*:Corresponding author

1. [C] Joshua Ian Bertrand, Alex Martakis, Hong Liu, **Chen Zhong\***, and Jun Yao, "Exploring Participants' Views of Cybersecurity Competitions Through the Lens of Social Media", accepted by 2020 IEEE Conference on Cognitive and Computational Aspects of Situation Management (CogSIMA), to appear.
2. [BC] **Chen Zhong**, John Yen, and Peng Liu. "Can Cyber Operations Be Made Autonomous? An Answer from the Situational Awareness Viewpoint." In Adaptive Autonomous Secure Cyber Systems, pp. 63-88. Springer, Cham, 2020.
3. [C] Lindsey Thomas, Moises Balders, Zach Courtney, **Chen Zhong\***, Jun Yao, and Chunxia Xu. "Cybersecurity Education: From Beginners to Advanced Players in Cybersecurity Competitions." In 2019 IEEE International Conference on Intelligence and Security Informatics (ISI), pp. 149-151. IEEE, 2019.
4. [C] **Chen Zhong\***, Awny Alnusair, Brandon Sayger, Aaron Troxell, and Jun Yao. "AOH-Map: A Mind Mapping System for Supporting Collaborative Cyber Security Analysis." In 2019 IEEE Conference on Cognitive and Computational Aspects of Situation Management (CogSIMA), pp. 74-80. IEEE, 2019.
5. [J] **Chen Zhong\***, John Yen, Peng Liu, and Robert F. Erbacher. "Learning from experts' experience: toward automated cyber security data triage." IEEE Systems Journal (2018), 99, pp.1-12. (IF:4.463)
6. [J] **Chen Zhong\***, Tao Lin, Peng Liu, John Yen, and Kai Chen. "A cyber security data triage operation retrieval system." Computers & Security (2018), 76, pp.12-31. (IF:3.062)
7. [C] Hong Liu\*, **Chen Zhong**, "Assessing Programming Education Approaches for College Beginners with Different Backgrounds", the 10th International Conference On Education Technology And Computers (ICETC), pp. 136-139. ACM, 2018.

8. [BC] Tao Lin, **Chen Zhong**, John Yen, and Peng Liu\*. "Retrieval of Relevant Historical Data Triage Operations in Security Operation Centers." In *From Database to Cyber Security*, pp. 227-243. Springer, Cham, 2018.
9. [C] Lindsey Thomas, Adam Vaughan, Zachary Courtney, **Chen Zhong\***, Awny Alnusair. "Supporting Collaboration among Cyber Security Analysts through Visualizing their Analytical Reasoning Processes". IEEE International Workshop on Machine Learning and Artificial Intelligence for Multimedia Creation. In Conjunction with IEEE ICME '18. San Diego, CA, USA. (2018).
10. [J] **Chen Zhong\***, Hong Liu, and Awny Alnusair. "Leveraging Decision Making in Cyber Security Analysis through Data Cleaning." *Southwestern Business Administration Journal* 16, no. 1 (2017): 1
11. [J] Awny Alnusair\*, **Chen Zhong**, Majdi Rawashdeh, M. Shamim Hossain, and Atif Alamri. "Context-aware multimodal recommendations of multimedia data in cyber situational awareness." *Multimedia Ter* **Ter** \Con ()Tj /T1\_0 1 Tf 2.0

18. [BC] John Yen\*, Robert F. Erbacher, **Chen Zhong**, and Peng Liu. "Cognitive Process." In Alexander Kott, Cli Wang and Robert F. Erbacher (Eds.), *Cyber Defense and Situational Awareness* (ISBN: 978-3-319-11390-6), pp. 119-144. Springer International Publishing, 2014.
19. [C] **Chen Zhong\***, Deepak S. Kirubakaran, John Yen, Peng Liu, Robert F. Erbacher, Steve Hutchinson, Renee Etoty, Hasan Cam, and William Glodek. "RankAOH: Context-Driven Similarity-Based Retrieval of Experiences in Cyber Analysis." In *proceedings of Cognitive Methods in Situation Awareness and Decision Support (CogSIMA)*, pp. 230-236. IEEE, 2014.
20. [C] **Chen Zhong\***, Deepak S. Kirubakaran, John Yen, Peng Liu, Steve Hutchinson, and Hasan Cam. "How to Use Experience in Cyber Analysis: An Analytical Reasoning Support System." In *proceedings of Intelligence and Security Informatics (ISI)*, pp. 263-265. IEEE, 2013.
21. [C] **Chen Zhong\***, Mingyi Zhao, Gaoyao Xiao, and Jun Xu, "Leveraging Visualization Function in Hypothesis-Based Collaboration on Cyber Analysis.", IEEE VIS 2013 VAST Challenge Workshop, Atlanta, GA, 2013. *Honorable Mention*.
22. [C] Mingyi Zhao\*, **Chen Zhong**, Richard Ciamaichelo, Michael Konek, Neela Sawant and Nicklaus A. Giacobe. "Federating Geovisual Analytic tools for Cyber Security Analysis." In *2012 IEEE Conference on Visual Analytics Science and Technology (VAST)*, pp. 303-304. IEEE, 2012 (Short Paper).

## UNIVERSITY SERVICES

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Informatics and Computer Science Faculty Search, Committee Member, Indiana University Kokomo 2019, 2018

IU Science Symposium 2019, Committee Member, Indiana University Kokomo 2019

IUK Science Fair, Task Force Member, Indiana University Kokomo 2018, 2017

Math Faculty Search, Committee Member, Indiana University Kokomo 2018

Computer Science Faculty Search, Committee Member, Indiana University Kokomo 2017

Faculty Development and Grants, Committee Member, Indiana University Kokomo 2017

Informatics Club, Advisor, Indiana University Kokomo 2019-2017

Women of Technology Club, Advisor, Indiana University Kokomo 2019, 2018

### Mentor

Advisor, IUK Informatics Club

Advisor, IUK Women in Technology (WiTS)

Coach, National Cyber League, IUK team

## PROFESSIONAL SERVICES AND MEMBERSHIP

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### Committee

Program Committee, the Special Issue on the NICE Framework of the Cyber-security Skills Journal, 2020

Panelist, National CyberWatch Center Curriculum Standards Panel for Information Security Fundamentals, 2019

Program Committee, the IEEE Conference on Cognitive and Computational Aspects of Situation Management (CogSIMA 2019, CogSIMA 2018).

Program Committee, the International Conference on Software Security (ICSS 2019).

Program Committee, Women in Cybersecurity Conference (Wicys 2019).

Program Committee, the Tenth International Conference on Emerging Networks and Systems Intelligence (EMERGING 2018).

Judge, ChinaViz Visual Analytics Challenges, 2018

ACM Poster Judge, ACM Student Research Competition Graduate Finals, GHC, 2017

Program Committee, The International Conference of Technology Innovation, Management and Entrepreneurship (TIME), 2017

Session Chair, IEEE International Conference on Intelligence and Security Informatics (IEEE ISI), 2019

Session Chair, IEEE International Conference on Intelligent Data and Security (IEEE IDS), 2015

### Review

IEEE Systems Journal (2018-present)

Organizational Behavior and Human Decision Processes, Elsevier

IEEE Transactions on Dependable and Secure Computing, 2015-2017  
IEEE Transactions on Systems, Man, and Cybernetics: Part A, 2015-2017  
IEEE Transactions on Systems, Man, and Cybernetics: Part B, 2015-2017  
IEEE Transactions on Systems, Man, and Cybernetics: Part C, 2015-2017  
IEEE Transactions on Systems, Man, and Cybernetics: Part D, 2015-2017  
IEEE Transactions on Systems, Man, and Cybernetics: Part E, 2015-2017  
IEEE Transactions on Systems, Man, and Cybernetics: Part F, 2015-2017  
IEEE Transactions on Systems, Man, and Cybernetics: Part G, 2015-2017  
IEEE Transactions on Systems, Man, and Cybernetics: Part H, 2015-2017  
IEEE Transactions on Systems, Man, and Cybernetics: Part I, 2015-2017  
IEEE Transactions on Systems, Man, and Cybernetics: Part J, 2015-2017  
IEEE Transactions on Systems, Man, and Cybernetics: Part K, 2015-2017  
IEEE Transactions on Systems, Man, and Cybernetics: Part L, 2015-2017  
IEEE Transactions on Systems, Man, and Cybernetics: Part M, 2015-2017  
IEEE Transactions on Systems, Man, and Cybernetics: Part N, 2015-2017  
IEEE Transactions on Systems, Man, and Cybernetics: Part O, 2015-2017  
IEEE Transactions on Systems, Man, and Cybernetics: Part P, 2015-2017  
IEEE Transactions on Systems, Man, and Cybernetics: Part Q, 2015-2017  
IEEE Transactions on Systems, Man, and Cybernetics: Part R, 2015-2017  
IEEE Transactions on Systems, Man, and Cybernetics: Part S, 2015-2017  
IEEE Transactions on Systems, Man, and Cybernetics: Part T, 2015-2017  
IEEE Transactions on Systems, Man, and Cybernetics: Part U, 2015-2017  
IEEE Transactions on Systems, Man, and Cybernetics: Part V, 2015-2017  
IEEE Transactions on Systems, Man, and Cybernetics: Part W, 2015-2017  
IEEE Transactions on Systems, Man, and Cybernetics: Part X, 2015-2017  
IEEE Transactions on Systems, Man, and Cybernetics: Part Y, 2015-2017  
IEEE Transactions on Systems, Man, and Cybernetics: Part Z, 2015-2017

