Yuming He

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Education

- **Fall. 2020 – Ongoing**   **Old Dominion University**
  Ph.D. Information Technology

- **Aug. 2018 – May 2020**   **Old Dominion University**
  M.S. Computer Science

- **Sept. 2006 – July 2010**   **Shanghai University**
  B.E. Chemical Engineering

Research Interest

- **Data Science:** Data Mining, Social Media Analytics, Scientometric Analytics
- **CyberSecurity & Privacy:** Identity Threat, Deviance behavior
- **Management Information System:** Task Delegation to AI, Algorithmic Management
- **Organizational Management:** In & Extra-Role Behavior, Organizational Control & Support
- **Tech-based Pedagogy:** Hybrid Learning, AI-empowered Learning

Teaching Experience

♦ **Instructor**   **Department of IT & Decision Science**

- **IT 150G: Information Literacy and Research (Score: 4.33/5)   Fall 2022, Online**
-- This course is designed to provide students with the basic skills necessary to identify, to access and to utilize task appropriate information. Students will learn to evaluate information sources and to apply good research strategies. The course will address qualitative, quantitative, visual and auditory data sources along with the ethical use of data and respect for intellectual property. Focus will be given to research topics in various fields including business, humanities, social science and technology.

- **IT 325: Web Site and Web Page Design (Score: 4.27/5)   Fall 2022, Face to Face**
-- This course aims to equip students with fundamental skills required for advanced web design and hands-on implementation of dynamic websites. Key topics covered include web page design, principles of usability, HTML, XHTML, Cascading Style Sheets (CSS), JavaScript, and Internet security.

- **IT 150G: Information Literacy and Research (Score: 4.18/5)   Spring 2023, Face to Face**
-- Two Face to Face sections

- **BNAL 206: Business Analytics (Score: 4.31/5)   Fall 2023, F2F+ Online**
-- This course introduces the methods of probability assessment and statistical inference. The topics covered encompass descriptive statistics, normal and binomial distributions, decision-making under uncertainty and risk, decision analysis incorporating sample information, sampling distributions, the Central Limit Theorem, interval estimation, and hypothesis testing. Emphasis is placed on applications in business and economics. When applicable, computer software is utilized as a problem-solving tool.

-- Two sections, one is Face to Face delivery, the other is online delivery

- **IT 205: Introduction to OOP (Score: 4.35/5)**   **Spring 2024, Face to Face**
-- An introductory object-oriented programming course (Python) with a focus on problem-solving for business applications. Topics include fundamental concepts such as data types, conditional statements, loops, functions, arrays, classes, inheritance, and more.

Professional Experience and Activity

- **Graduate Research Assistant**   **Summer 2019/2020/2022/2023**

PI: Dr. Chunsheng Xin & Dr. Danella Zhao   "GenCyber summer camp" funded by NSF and NSA
-- Organized and coordinate the events for the summer camp.
-- Teaching cybersecurity knowledge to K-12 students at summer camp.
-- Using surveys and exercises to collect the experiment data and evaluate the impact

- **Graduate Research Assistant**   **Summer 2023**
PI: Dr. Khan Iftekharuddin and Mr. Peng Jiang   "REU on Deep Learning Driven Cybersecurity Research in a Multidisciplinary Environment" funded by NSF
-- Organized and coordinate the events for the REU project
-- Co-advised undergraduate students to implement deep learning techniques in research
-- Using surveys and exercises to collect the experiment data and evaluate the impact

- **Graduate Research Assistant**   **Aug 2018 − Aug 2022**
PI：Dr. Ling Li   "Pair Programming for students with Learning Disabilities" funded by NSF
-- Taught VB.NET programming language to undergraduate students.
-- Developed Zoom deliver SOP in COVID period
-- Using surveys and exercises to collect the experiment data and evaluate the impact.

- **Graduate Research Assistant**   **Sept. 2019 − Aug. 2020**
PI: Dr. Hongyi Wu   "DeapSecure" funded by NSF:
-- Assisted and developed teaching materials for a series of workshops:

Unraveling Cybercrime Using Supercomputer	Sept 13; Sept 20, 2019
Secret Computing Using Homomorphic Encryption	Oct 4; Oct 18, 2019
Parallel Programming with OpenMP and MPI	Oct 25; Nov 8, 2019
Leveraging Big Data for Cybersecurity	Jan 24; Jan 31, 2020
Machine learning for Cybersecurity	Feb 7; Feb 14, 2020
Deep learning for Cybersecurity	Feb 21; Feb 28, 2020

- **Graduate Research Assistant**   **Jan 2019 − Aug. 2021**
PI: Dr. Lida Xu   "Enhancing Cyber Security Education Using POGIL" funded by NSF
-- Assisted and taught cybersecurity knowledge to undergraduate students by using the POGIL method.
-- Using surveys to collect student attitudes and evaluate the effectivity.

- **Graduate Research Assistant**   **July 2019 − May 2020**
Research Computing Group in Information Technology Services at ODU
PI: Dr. Wirawan Purwanto
-- Supported users to utilize the High-Performance Computing (HPC) resource in their research.
-- Organized a series of workshop sponsored by XSEDE and ODU:

Intro to HPC	Oct 7; Nov 4;
Software carpentry	Aug21-22；
Big Data Workshop	Aug 6-7; Oct 1-2

- **Database Administrator for IT&DS department**   **Aug. 2020 − Sept. 2023**

-- Coordinated the campus resource to support the infrastructure
-- Create and maintain the database accounts
-- Solve the technical issues related to the usage of database

Achievement and Professional Service

- **University funded Summer Research Assistantship ($5000)**   **Summer 2022**

- **University funded Summer Research Assistantship ($5000)**   **Summer 2021**

- **Best Student Paper Award in *Issues in Information System***   **2021**

- **Outstanding Doctoral Student in IT/SCM department**   **2021**
-- For excellent performance in teaching and research

- **Secretary of IFIP TC 8 WG 8.12**   **2020-Present**
responsible for providing comprehensive administrative and logistical support for conferences and events.

--- IFIP International Conference on Industrial Information Integration
--- International Conference on Enterprise Systems
--- International Conference on Research and Practical Issues of Enterprise Information Systems

- **Won Second place in 3rd annual CyberOps CTF competition**   **Oct.19, 2019**
-- Solved challenges related to reconnaissance, cryptography, binary and web exploitation, reverse engineering, and forensics.

- **Attended 2020 Simon Initiative LearnLab Summer School at CMU**   **July 27-31, 2020**
-- Learned advanced state-of-the-art tools: Open Learning Initiative (OLI) development environment, Cognitive Tutor Authoring Tools, tools for authoring natural language dialog, TagHelper tools for semi-automated coding of verbal data, and DataShop for storage of interaction data and analysis of knowledge and performance.

- **Attended Quantum Science Center's inaugural Quantum Summer School**   **May.17-20, 2021**
-- Learned advanced quantum technology and the ideas for research in quantum computing.

- **Attended 34 nd AAAI Conference on Artificial Intelligence in NYC**   **Jan.7-12, 2020**
--- Awarded grant for travel and accommodation.

- **Attended 2nd Conversational Intelligence Summer School at UMass Lowell**   **June 24–29, 2019**
-- Project: an intelligence chatbot for summer camp assistant (Word2vec, Bi-LSTM, Seq2Seq, Attention);
-- Awarded grant for travel and accommodation.

- **Attended NSF Cyber Infrastructure Training Summer Institute at ODU**   **June 10–14, 2019**
-- Learned advanced CI techniques and use CI resources, tools, and services to succeed in cutting-edge cybersecurity research and industrial cybersecurity projects.

- **Paper Reviewer:**
Provide constructive feedback to the authors. Point out strengths and weaknesses in the paper, offering specific suggestions for improvement. Focus on the quality of the research and its contribution to the field.

-- Information Discovery and Delivery   2019-Present
-- Behaviour & Information Technology   2020-Present
-- Information Technology and Management   2021-Present
-- SIGCSE TS   2021-Present

-- AMCIS	2023-Present
-- IACIS	2021-Present
-- ICIS	2023
-- Library Hi Tech	2023
-- Expert Systems with Applications	2023
-- Journal of Cloud Computing	2023
-- ECIS	2022
-- Human-Centric Intelligent Systems	2021-2022
-- Computers in Human Behavior Reports	2020-2022
-- Online Information Review	2020
-- 2019 IEEE International Conference on Bioinformatics and Biomedicine	2019
-- NCWIT collegiate award 2019	2019

Industry Experience

- **Project Manager** Oct. 2014 – Mar. 2018 **Shanghai YuYao Technology Co., Ltd**
-- Lead all project phases, including initiation, planning, execution, monitoring, control, and closure.
-- Responsible for corporate resource integration, market strategy and business planning.

- **Key Account Executive** July 2010 – Sep. 2014 **VWR International Co., Ltd**
-- Responsible for product training, lab design and identify the configuration of equipment.
-- Worked closely with the operation team to improve overall customer satisfaction.
-- Assisted in developing and maintaining an accurate forecast for the business; work with clients and purchasing management to adjust forecasts based on analysis and forecasted trend.

Skill and University Service

- **Computer Skills:**
  - HTML/CSS/Javascript; C/C++; Python; R; SPSS; AMOS; Stata; Mysql; Oracel; Qiskit;
- **Website Design and Content Management:**
  - ODU GenCyber;
  - ODU Supply Chain Management & Analytics Lab
  - IFIP TC 8 WG 8.12

- **Club Officer**
  - Club President of The G.I.T.S. (Grads of I.T. Society)
    --- Oversee all aspects of club operations, including membership recruitment, event planning, and financial management.
    --- Host meetings, facilitate discussions, and encourage active participation to ensure effective decision-making and teamwork.
    --- Represent the club at campus events and collaborated with other student organizations to create partnerships and co-hosted events.
  - Club Secretary of Data Science/Database Student Club
    --- Manage club finances, including budgeting, fundraising, and expense tracking, resulting in sustainable funding for club activities.
    --- Ensure compliance with club bylaws and school regulations, submitting required paperwork and reports as needed.
    --- Manage club communications, including email announcements and social media updates, to keep members informed about events and activities.

Journal Publication

1. Xing, Y., **He, Y**., & Zhang, J. Z. (2023). Examining themes of social media users' opinion on remote work during COVID-19 pandemic: a justice theory perspective. ***Library Hi Tech***.
2. **He, Y**., Li, W., Liu, L., & He, W. (2023). NFTs–A Game Changer or a Bubble in the Digital Market?. ***Journal of Global Information Technology Management***, *26*(1), 1-8.
3. Wang, X., Luo, R., Liu, Y., Chen, P., Tao, Y., & **He, Y.** (2023). Revealing the complexity of users' intention to adopt healthcare chatbots: A mixed-method analysis of antecedent condition configurations. ***Information Processing & Management***, *60*(5), 103444.
4. Tian, X., He, W., **He, Y.,** Albert, S., & Howard, M. (2023). Using health belief model and social media analytics to develop insights from hospital-generated twitter messaging and community responses on the COVID-19 pandemic. ***Journal of Enterprise Information Management***.
5. Shen, W., Wang, J., Feng, X., & **He, Y**. (2023). Satisfaction with information services among individuals in China's urban communities during the COVID-19 pandemic. ***The Electronic Library***, *41*(4), 474-502.
6. Zhang, J. Z., He, W., Shetty, S., Tian, X., **He, Y**., Behl, A., & Veetil, A. K. V. (2023). Understanding governance and control challenges of blockchain technology in healthcare and energy sectors: a historical perspective. ***Journal of Management History***.
7. Wang, R., Deng, J., Guan, X., & **He, Y.** (2023). A framework of genealogy knowledge reasoning and visualization based on a knowledge graph. ***Library Hi Tech***.
8. Sun, Y., **He, Y.,** Yu, H., & Wang, H. (2022). An evaluation framework of IT-enabled service-oriented manufacturing. ***Systems Research and Behavioral Science***, 39(3), 657-667.
9. He, W., Zha, S., Watson, S., & **He, Y**. (2022). Teaching Tip: Promoting Inclusive Online Learning for Students with Disabilities in Information Systems Courses**. *Journal of Information Systems Education***, 33(1), 7-14.
10. **He, Y.,** He, W., Xu, L., Tian, X., Yuan, X., Yang, L., & Ellis, J. T. (2022). Guided Inquiry Collaborative Learning (GICL) for Online Teaching in Cybersecurity: Challenges and Recommendations. In ***Journal of The Colloquium for Information Systems Security Education*** (Vol. 9, No. 1, pp. 5-5).
11. **He, Y.,** Tian, X., & Xing, Y. (2021). A Review on COVID-19 related research in leading information systems journals. ***Issues in Information Systems***, 22(4). (**Best Student Paper**)
12. Li, L., Xu, L., **He, Y.,** He, W., Pribesh, S., Watson, S. M., & Major, D. A. (2021). Facilitating Online Learning via Zoom Breakout Room Technology: A Case of Pair Programming Involving Students with Learning Disabilities. ***Communications of the Association for Information Systems***, 48, pp-pp. https://doi.org/ 10.17705/1CAIS.04812
13. Purwanto, W., **He, Y.,** Ossom, J., Zhang, Q., Zhu, L., Arcaute, K., ... & Wu, H. (2021). DeapSECURE Computational Training for Cybersecurity Students: Improvements, Mid-Stage Evaluation, and Lessons Learned. ***Journal of Computational Science Education***, 12(2).
14. Li, P., Gu, J. W., Ying, Y., **He, Y. M**., Zhang, H. F., Zhao, G., & Zhu, S. Z. (2010). Palladium-catalyzed alkenylation of fluoro-substituted furans via C–H activation to form tetrasubstituted furans. ***Tetrahedron***, 66(43), 8387-8391.

Conference Proceeding

1. Liu, L., Li, W., **He, Y.,** & He, W. (2023). Does The NFT Market Interact With Major Financial Markets?. *SAIS 2023 Proceedings*
2. Zhang, Justin; He, Wu; Shetty, Sachin; **He, Yuming;** and Tian, Xin, "A Proposed Framework for the Governance of Blockchain Technology" (2022). *AMCIS 2022 Proceedings*. 1. https://aisel.aisnet.org/amcis2022/sig_egov/sig_egov/1
3. Uden, Lorna; He, Wu; and **He, Yuming**, "Co-Destruction of Value Using Social Media in Policing Through Activity Theory" (2022). *AMCIS 2022 Proceedings*. 3. https://aisel.aisnet.org/amcis2022/sig_si/sig_si/3
4. **He, Y**., Zha, S., & He, W. (2021). A literature review of quantum education in K-12 level. *Innovate Learning Summit*, 418-422.
5. **He, Y**., He, W., Yuan, X., & Yang, L. (2021, November). Promoting Diversity in teaching cybersecurity through GICL. In *Innovate Learning Summit* (pp. 451-453). Association for the Advancement of Computing in Education (AACE).

6. Chen, W., **He, Y.,** Tian, X., & He, W. (2021, October). Exploring Cybersecurity Education at the K-12 Level. In *SITE Interactive Conference* (pp. 108-114). Association for the Advancement of Computing in Education (AACE).
7. Tian, X., He, W., Zhang, J., & **He, Y.** (2021). Fake News or Real News? Sharing Behaviors on Social Media about COVID-19. *2021 KSU Conference on Cybersecurity Education, Research and Practice*
8. He, Wu; Xu, Li; **He, Yuming**; Yuan, Xiaohong; Yang, Li; and Ellis, Jennifer, "Teaching Buffer Overflow via a Guided Inquiry Collaborative Learning Activity" (2020). *SAIS 2020 Proceedings*. 18. https://aisel.aisnet.org/sais2020/18
9. Pribesh, S., He, W., Watson, S., Major, D., Xu, L., Li, L., ... & **He, Y.** (2019). Students with Learning Disabilities, Pair Programming and Situational Motivation. In Society for Information Technology & Teacher Education International Conference (pp. 2390-2395). *Association for the Advancement of Computing in Education* (AACE).
10. Xu, L., Tian, X., Yuan, X., Yang, L., Eliis, J. & **He, Y.** (2019). The Impact of Guided Inquiry Collaborative Learning on Students' Learning in Secure Coding. *Proceedings at the 2019 AECT International Convention* in Las Vegas, Nevada, October 2019.

Presentation

1. "Evolution of scholarly collaboration in ICIS: a scientometric analysis" --- 42nd International Conference on Information Systems, ICIS 2021, Dec. 12th
2. "Quantum computing and technologies: State-of-Art and Future Prospects" --- 42nd International Conference on Information Systems, ICIS 2021, Dec. 12th
3. "Fake News or Real News? Sharing Behaviors on social media about COVID-19" --- 2021 KSU CONFERENCE ON CYBERSECURITY EDUCATION, RESEARCH AND PRACTICE, October 30th
4. "Exploring Cybersecurity Education at the K-12 Level" --- 2021 SITE Interactive Conference, October 26th
5. "A Review on COVID-19 related research in leading information systems journals." ---61st IACIS Annual Conference, October 8th, 2021
6. "Using pair programming as a collaborative learning approach to support students with learning disabilities via Zoom breakout rooms"---Society for Information Technology & Teacher Education 2021, April 1
7. "Teaching Buffer Overflow via a Guided Inquiry Collaborative Learning Activity"---SAIS 2020, Sept. 11th

Reference List

- **Dr. Lida Xu**   **Professor in Department of IT & Decision Sciences at ODU**

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- **Dr. Ling Li**   **Professor in Department of IT & Decision Sciences at ODU**

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