

Ye Wang

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EDUCATION

- **University of Kansas** Lawrence, Kansas, United States
Ph.D. in Computer Science, Department of Electrical Engineering and Computer Science Jan. 2020 – Present
Advisor: [Prof. Fengjun Li](#) & [Prof. Bo Luo](#)
- **Beihang University** Beijing, China
M.Eng. in Optical Engineering, School of Instrumentation Science and Optoelectronic Engineering Sep. 2011 – Mar. 2014
Advisor: [Prof. Xiaoxiao Wang](#)
- **Beihang University** Beijing, China
B.S. in Electronic Engineering, School of Instrumentation Science and Optoelectronic Engineering Sep. 2007 – Jul. 2011
Advisor: [Prof. Zhongyi Chu](#)

RESEARCH INTEREST

My research interest lies in system security for modern machine-learning back-end systems and user-centric scenarios. I focus on advanced sensor spoofing attacks and defenses in these platforms, especially human-imperceptible and legitimate user-interaction-driven signals.

- AI Security: Physical adversarial attacks; detection and defense against deepfakes.
- System Security: Android sensor-driven logic bombs, countermeasures against non-intrusive side-channel attacks, and the design of practical attack chains that combine side- and covert-channels.

PUBLICATIONS

Conference Papers

- [C1] Wang, Ye and Luo, Bo, and Li, Fengjun. Poster: A Novel Fully Sensor-driven Attack Chain. *Annual Computer Security Applications Conference (ACSAC) 2025*. Accepted.
- [C2] Wang, Ye, Liu, Zeyan and Luo, Bo and Hui, Rongqing, and Li, Fengjun. [The Invisible Polyjuice Potion: an Effective Physical Adversarial Attack against Face Recognition](#). *Proceedings of the 2024 on ACM SIGSAC Conference on Computer and Communications Security (CCS)*, 2024, 3346–3360.
- [C3] Li, Kevin and Wang, Zhaohui and Wang, Ye and Luo, Bo and Li, Fengjun. [Poster: ethics of computer security and privacy research-trends and standards from a data perspective](#). *Proceedings of the 2023 ACM SIGSAC Conference on Computer and Communications Security (CCS)*, 2023, 3558–3560.
- [C4] Fan, Wei and Huang, Weiqing and Zhang, Zhujun and Wang, Ye and Sun, Degang. [A Near Field Communication \(NFC\) security model based on the OSI reference model](#). *2015 IEEE Trustcom/BigDataSE/ISPA*, 2015, 1324–1328.

Journal Papers

- [J1] Qingshan, Kong, Kang Di, Wang Ye, Zhang Meng, and Huang Weiqing. [Eavesdropping Attacks on Optical Fiber Communication and Countermeasure of Optical Fiber Sensing Technology](#). *Journal of Information Security Research*, 2,2 (2016): 123.
- [J2] Xiaoxiao, Wang, Ye, Wang*, Yi, Qin, and Jia, Yu. [Ratio error of all fiber optical current transformer caused by mean wavelength's fluctuation](#). *Infrared and Laser Engineering*, 2015, 44.1 (2015): 233-238.
- [J3] Wang, Xiaoxiao and Wang, Xichen and Wang, Ye and Feng, Xiujuan. [A novel Faraday effect-based semi-physical simulation method for bandwidth of fiber-optic gyroscope](#). *Optik*, 2014, 1358–1360.
- [J4] Xiaoxiao, Wang, Wang Ye*, Wang Xichen, Wang Aimin, and Peng Zhiqiang. Experimental research on dynamic characteristics of fiber optical current transformer. *Power System Protection and Control*, 42.3 (2014): 9-14.
- [J5] Xiaoxiao, Wang, Yi, Qin, and Ye, Wang*. Errors of fiber delay line polarization crosstalk for all fiber optical current sensors. *Optics and Precision Engineering*, 22.11 (2014): 2930-2936.
- [J6] Xiaoxiao, Wang, Ye, Wang*, Chuansheng, Li, and others. Measurement method and experimental research of the temperature dependence of the phase delay of quarter-wave plates. *Chinese J Lasers*, 40.12 (2013): 1205004.

RESEARCH AND PROFESSIONAL EXPERIENCE

- **Institute for Information Sciences, University of Kansas** Lawrence, Kansas, United States
Graduate Research Assistant Jan. 2020 – Present
 - Non-intrusive physical-layer masking for preventing side-channel leaks via accelerometers.
 - Combining motion-sensor side channels with covert vibration channels to form a practical attack chain.
 - Stealthy sensor-enabled logic bombs for Android that evade static analysis, dynamic analysis, and user awareness.
 - Proactive deepfakes face swap defense with identity/context protection and forensic tracing.

- Develop an effective physical adversarial attack against face recognition CNN models.

• **Institute of Information Engineering, Chinese Academy of Sciences**

Assistant Research Scientist

Beijing, China

Mar. 2014 – Dec. 2019

- Research on GPS spoofing of UAV (drone) navigation systems and developed practical detection and mitigation techniques.
- Developed a fiber-optic communication system security monitoring framework, focusing on intrusion detection.
- Developed an unauthorized recording device detection system based on weak magnetic signal analysis.
- Research on security modeling for Near-Field Communication (NFC) devices.

• **Institute of Optoelectronics Technology, Beihang University**

Graduate Research Assistant

Beijing, China

Sep. 2011 – Mar. 2014

- Conducted research to improve the dynamic response and measurement accuracy of fiber-optic current transformers.

HONORS AND AWARDS

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| • Graduate Engineering Association Award – University of Kansas (KU) | 2024 |
| • DAVID D. and MILDRED H. ROBB AWARD – EECS, University of Kansas | 2024 |
| • ACM CCS Travel Grant Award – NSF | 2024 |
| • Graduate Student Travel Fund – KU Student Senate | 2024 |
| • CANSec Workshop Travel Grant Award –NSF | 2022, 2024 |
| • The second prize of the Science and Technology Award – MIIT (PRC) | 2019 |
| • Excellent Researcher – Institute of Information Engineering, CAS | 2016, 2018 |
| • Outstanding Master’s Thesis Award – Beihang University | 2014 |
| • Science and Technology Award – Ministry of Education, PRC | 2013 |
| • Graduate Guanghua Scholarship – Beihang University | 2013 |
| • Outstanding Undergraduate Thesis Award – Beihang University | 2011 |

TEACHING EXPERIENCE

• **Graduate Teaching Assistant**

University of Kansas

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| ◦ EECS 268: Programming II
Instructor: <i>Dr. John Gibbons</i> | Spring 2025 |
| ◦ EECS 569: Computer Forensics
Instructor: <i>Dr. Bo Luo</i> | Fall 2024 |
| ◦ EECS 565: Introduction to Information and Computer Security
Instructor: <i>Dr. Fengjun Li</i> | Fall 2025, 2024, 2023 |
| ◦ EECS 447: Introduction to Database Systems
Instructor: <i>Dr. Bo Luo</i> | Spring 2024, 2023 |

• **Teaching Assistant**

University of Chinese Academy of Sciences

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| ◦ Physical Space Information Security
Instructor: <i>Prof. Degang Sun</i> | Spring, 2017 |
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MENTORING EXPERIENCE

1. Yuying Li, PhD Student, The University of Kansas, 01/2025-present
Project: A novel attack chain to improve the practicality of side channel attacks
2. Weihang Hu, Master Student, University of Chinese Academy of Sciences, 9/2018-9/2019
Project: CNN-based electromagnetic spectrum analysis (Master’s thesis)
3. Navya Nittala, Sophia Jacob, undergraduate students, The University of Kansas, 5/2024-12/2024
Project: motion sensor information leakage protection

CONFERENCE PRESENTATION

- Agile: An Effective Laser-Based Physical Adversarial Attack against Face Recognition, AI summit *Falling into AI* with Google, October 1st, 2025, Nichols Hall, The University of Kansas.
- The Invisible Polyjuice Potion: An Effective Physical Adversarial Attack against Face Recognition, ACM SIGSAC Conference on Computer and Communications Security (CCS ’24), October 17th, 2024, Salt Lake City.
- The Invisible Polyjuice Potion: An Effective Physical Adversarial Attack against Face Recognition, The Central Area Networking and Security Workshop (CANSec) 2024, October 12th, 2024, University of Oklahoma, Norman, OK.
- Stealthily evading surveillance-camera face recognition, FBI and KU Cybersecurity Conference, April 4, 2024, KU Memorial Union, the University of Kansas.
- Laser man against unauthorized facial recognition systems, The I2S Student Research Symposium (ISRS), March 3rd, 2023, Nichols Hall, The University of Kansas.

PROFESSIONAL MEMBERSHIPS

- ACM SIGSAC Membership

PROFESSIONAL SERVICE

Paper Review

- Journal reviewer for IEEE Transactions on Dependable and Secure Computing (TDSC)
- External paper reviewer: ACM SIGSAC Conference on Computer and Communications Security (CCS 2025)
- External paper reviewer: the 44th IEEE International Conference on Distributed Computing Systems (ICDCS 2024)
- External paper reviewer: Annual IEEE/IFIP International Conference on Dependable Systems and Networks (DSN 2023)
- External paper reviewer: the Annual Computer Security Applications Conference (ACSAC 2023)
- External paper reviewer: Annual IEEE/IFIP International Conference on Dependable Systems and Networks (DSN 2022)
- External paper reviewer: IEEE International Conference on Trust, Security and Privacy in Computing and Communications (TrustCom 2022)

Community Service

- GenCyber Teacher Camp, Student Volunteer and Teaching Assistant, Funded by NSA and NSF, 2023
- GEA Research Symposium, Student Judge, University of Kansas, 2023
- Session Moderator for EAI SecureComm, 2022

REFERENCES

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|---|---|
| • Dr. Fenjun Li
fli@ku.edu | <i>EECS, University of Kansas</i>
Deane E. Ackers Professor |
| • Dr. Bo Luo
bluo@ku.edu | <i>EECS, University of Kansas</i>
H.J. and Joan O. Wertz Professor |
| • Dr. Rongqing Hui
rhui@ku.edu | <i>EECS, University of Kansas</i>
Professor |

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