

NSF BIOGRAPHICAL SKETCH

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IDENTIFYING INFORMATION:

NAME: Hei, Xiali

ORCID: 0000-0002-2438-5430

POSITION TITLE: Assistant Professor

ORGANIZATION AND LOCATION: University of Louisiana at Lafayette, Lafayette, LA, US**Professional Preparation:**

ORGANIZATION AND LOCATION	DEGREE (if applicable)	DATE RECEIVED	FIELD OF STUDY
Temple University, Philadelphia, Pennsylvania, US	Ph.D	05/2014	Computing and Information Sciences
Tsinghua University, Beijing, Beijing, CN	MS	07/2005	School of Software
Xi'an Jiaotong University, Xi'an, Shaanxi, CN	BS	07/2002	Electrical Engineering

Appointments and Positions

2017 - present Assistant Professor, University of Louisiana at Lafayette, School of Computing and Informatics, Lafayette, LA, US

2015 - 2017 Assistant Professor, Delaware State University, Dover, DE, US

2014 - 2015 Assistant Professor, Frostburg State University, Frostburg, MD, US

Products**Products Most Closely Related to the Proposed Project**

1. Tu Yazhou, Rampazzi Sara, Hao Bin, Rodriguez Angel, Fu Kevin, Hei Xiali. Trick or Heat? Manipulating Critical Temperature-Based Control Systems Using Rectification Attacks. The 2019 ACM SIGSAC Conference on Computer and Communications Security; 2019; c2019. Available from: <https://dl.acm.org/doi/pdf/10.1145/3319535.3354195>
2. Tu Yazhou, Lin Zhiqiang, Lee Insup, Hei Xiali. Injected and Delivered: Fabricating Implicit Control over Actuation Systems by Spoofing Inertial Sensors. USENIX SECURITY Symposium; 2018; c2018. Available from: <https://www.usenix.org/conference/usenixsecurity18/presentation/tu>
3. Hossen Md Imran, Tu Yazhou, Rabby Md Fazle, Islam Md Nazmul, Cao Hui, Hei Xiali. An Object Detection based Solver for Google's Image reCAPTCHA v2. 23rd International Symposium on Research in Attacks, Intrusions and Defenses (RAID 2020); 2020; c2020.
4. Tu Yazhou, Tida Vijay Srinivas, Pan Zhongqi, Hei Xiali. Transduction Shield: A Low-Complexity Method to Detect and Correct the Effects of EMI Injection Attacks on Sensors. Proceedings of the 2021 ACM Asia Conference on Computer and Communications Security;

2021; c2021.

5. Hossen Md Imran, Hei Xiali. aaeCAPTCHA: The Design and Implementation of Audio Adversarial CAPTCHA. IEEE European Symposium on Security and Privacy; 2022; , IT. c2022.

Other Significant Products, Whether or Not Related to the Proposed Project

1. Zhang Shiliang, Cao Hui, Yang Shuo, Zhang Yanbin, Hei Xiali. Sequential Outlier Criterion for Sparsification of Online Adaptive Filtering. IEEE transactions on neural networks and learning systems. 2018; 29(11):5277--5291.
2. Hao Bin, Hei Xiali, Tu Yazhou, Du Xiaojiang, Wu Jie. Voiceprint-based Access Control for Wireless Insulin Pump Systems. 2018 IEEE 15th International Conference on Mobile Ad Hoc and Sensor Systems (MASS); 2018; c2018.
3. Hossen M, Hei X. A Low-Cost Attack against the hCaptcha System. 2021 IEEE Security and Privacy Workshops (SPW). 2021 IEEE Security and Privacy Workshops (SPW); ; San Francisco, CA, USA. IEEE; c2021. Available from: <https://ieeexplore.ieee.org/document/9474292/> DOI: 10.1109/SPW53761.2021.00061
4. Rabby M, Tu Y, Hossen M, Lee I, Maida A, Hei X. Stacked LSTM based deep recurrent neural network with kalman smoothing for blood glucose prediction. BMC Medical Informatics and Decision Making. 2021 March 16; 21(1):- . Available from: <https://bmcmmedinformdecismak.biomedcentral.com/articles/10.1186/s12911-021-01462-5> DOI: 10.1186/s12911-021-01462-5
5. Hossen Imran, Tu Yazhou, Hei Xiali. A First Look at the Security of EEG-based Systems and Intelligent Algorithms under Physical Signal injections. The inaugural AsiaCCS 2023 Workshop on Secure and Trustworthy Deep Learning Systems (SecTL 2023); 2023; , US. c2023.

Synergistic Activities

1. Served as a Program Committee member of USENIX Security Symposium 2019 & 2020 & 2021 & 2022.
2. Ph.D. Thesis External Examiner for University of Oxford (2022)
3. Offered an undergraduate-level course INFX 455 - Cyber-Physical System Security undergraduate students (2019, 2020, 2021) and a graduate-level course CSCE 598 - Advanced Cyber-Physical System Security (2020, 2021).
4. Offered online Ethical Hacking certificate course for state-wide college students (including minority students) in 2021 & 2022.
5. Worked on a security educational project with two faculty from community colleges: Baton Rouge Community College (minority-serving) and South Louisiana Community College.

Certification:

When the individual signs the certification on behalf of themselves, they are certifying that the information is current, accurate, and complete. This includes, but is not limited to, information related to domestic and foreign appointments and positions. Misrepresentations and/or omissions may be subject to prosecution and liability pursuant to, but not limited to, 18 U.S.C. §§ 287, 1001, 1031 and 31 U.S.C. §§ 3729-3733 and 3802.

Certified by Hei, Xiali in SciENcv on 2023-04-09 22:41:11