

# **Feng Zhu**

Associate professor

Department of Computer Science

## **Education**

Ph D, Michigan State University, Computer Science

MS, Michigan State University, Statistics

MS, Michigan State University, Computer Science

## **Courses taught**

CS 370/470/570 Intro to computer networks

CS 485/585 Intro to computer security

CS 670 Computer Networks

CS 685 Computer Security

CS 692 Cybersecurity Capstone

## **Students**

Current PhD Students

Daniel Davis

Femi Williams

PhD Dissertations

Swapna Kolimi

Mini Zeng

MS Theses

Ajinkya Kulkarni

Curt Lawson

Lance Warden

Deb Brink

Khalid Razak

Ha Jiang

Daniel Davis

## Publications

- Williams, F., Aygun, R., Zhu, F., (2021) “ERP Template Matching for EEG Single Trial Classification,” International Conference on Bioinformatics and Biomedicine.
- Agrawal, N., Zhu, F., Carpenter, S. (2020) “Do You See the Warning? Cybersecurity Warnings via Nonconscious Processing,” ACM Southeast Conference.
- Davis, D., Zhu, F. (2020) “Understanding and Improving Secure Coding Behavior with Eye Tracking Methodologies,” ACM Southeast Conference.
- Carpenter, S., Shreeves, M., Brown, P., Zhu, F., Zeng, M., (2017). “Designing Warnings to Reduce Identity Disclosure,” International Journal of Human-Computer Interaction.
- Carpenter, S., Zhu, F., Zeng, M., Shreeves, M., (2017). “Expert Sources in Warnings May Reduce the Extent of Identity Disclosure in Cyber Contexts,” International Journal of Human-Computer Interaction.
- Davis, D., Zhu, F. (2016). “The Study of Cryptographic Algorithms and Performance Measurements across Heterogeneous Devices,” Computer Science Education & Computer Science Research.
- Zeng, M., Zhu, F., Carpenter, S. (2016). “Dynamic Warnings,” Advances in Computer-Human Interaction.
- Zeng, M., Zhu, F. (2016). “A Step by Step Guide to Building Secure Software,” Orlando, Florida: 7th International Multi-Conference on Complexity, Informatics and Cybernetics (IMCIC).
- Zhu, F., Carpenter, S., Kolimi, S. (2015). “Mindlessness Attacks,” Las Vegas, NV: 6th International Conference on Applied Human Factors and Ergonomics.
- Carpenter, S., Zhu, F. (2015). “Gender, Age, and Ethnic Influences on Privacy,” Huntsville, AL: 7th Annual Southeastern Cyber Security Summit.
- Zhu, F., Razak, K. (2015). “Teaching Commercial Network Protocols,” Computer Science Education & Computer Science Research.
- Carpenter, S. L., Zhu, F., Kolimi, S. (2014). “Reducing online identity disclosure by using warnings,” Applied Ergonomics, 45(5), 1337 - 1342.
- Zhu, F., Zhu, W., Mutka, M., Ni, L., (2014) “Service Discovery Architecture and Protocol Design for Pervasive Computing,” in “Advanced Design Approaches to Emerging Software Systems: Principles, Methodology and Tools”.
- Zhu, F., Carpenter, S., Kulkarni, A., “Understanding Identity Exposure in Pervasive Computing Environments,” Pervasive and Mobile Computing, Vol. 8, 2012.
- Zhu, F., Mutka, M., and Ni, L., “Private Entity Authentication for Pervasive Computing Environments,” International Journal of Network Security, Vol.14, No.1, Jan. 2012
- Kolimi, S., Zhu, F., Carpenter, S., “Contexts and sharing/not sharing Private Information”, ACM Southeast Conference, 2012.
- Kolimi, S., Zhu, F., Carpenter, S., “Is Older, Wiser? An Age-Specific Study of Exposure of Private Information”, ACM Southeast Conference, 2012.
- Lawson, C., Zhu, F., “Sentential Access Control”, ACM Southeast Conference, 2012.

- Zhu, F., and Kulkarni, A., "DynamicSD: Discover Dynamic and Uncertain Services in Pervasive Computing Environments," the 20th International Conference on Computer Communications and Networks (ICCCN), Maui, Hawaii, 2011.
- Zhu, F., Carpenter, S., Kulkarni, A., Kolimi, S., "Reciprocity Attacks," in Symposium On Usable Privacy and Security, Pittsburgh, PA, 2011 (SOUPS 2011).
- Zhu, F., Carpenter, S., Zhu, W., Mutka, M., "A Game Theoretic Approach to Optimize Identity Exposure in Pervasive Computing Environments," International Journal of Information Security and Privacy, Vol. 4, No.3, 2010.
- Zhu, F., Mutka, M., Bivalkar, A., Demir, A., Lu, Y., Chidambaram, C., "Towards Secure and Private Service Discovery Anywhere Anytime," Frontiers of Computer Science in China, Volume 4 Issue 3, September 2010.
- Zhu, F., Zhu, W., "Secure and Private Service Discovery in Pervasive Computing Environments," in "Applied Cryptography for Cyber Security and Defense", 2010.
- Zhu, F., Zhu, W., "Secure and Private Service Discovery in Pervasive Computing Environments," International Journal of Information Security and Privacy, Vol. 3, No.3, 2009.
- Zhu, F., Carpenter, S., Kulkarni, A., Chidambaram, C., Pathak, S., "Understanding and Minimizing Identity Exposure in Ubiquitous Computing Environments", Proceedings of the 2009 International Conference on Mobile and Ubiquitous Systems: Computing, Networking and Services (Mobiquitous 2009),
- Zhu, F., Zhu, W., "RationalExposure: a Game Theoretic Approach to Optimize Identity Exposure in Pervasive Computing Environments," Proceedings of the 2009 IEEE Annual Conference on Pervasive Computing and Communications (Percom 2009), March 2009.
- Zhu, F., Mutka, M., and Ni, L., "Private and Secure Service Discovery via Progressive and Probabilistic Exposure," IEEE Transactions on Parallel and Distributed Systems, vol. 18, No.11, 2007.
- Zhu, F., Mutka, M., and Ni, L., "A Private, Secure and User-centric Information Exposure Model for Service Discovery Protocols," IEEE Transactions on Mobile Computing, vol. 5, No. 4, pp. 418-429, 2006.
- Zhu, F., Mutka, M., and Ni, L., "The Master Key: A Private Authentication Approach for Pervasive Computing Environments," Proceedings of the 2006 IEEE Annual Conference on Pervasive Computing and Communications (Percom 2006), March 2006.
- Zhu, F., Mutka, M., and Ni, L., "Service Discovery in Pervasive Computing Environments," IEEE Pervasive Computing, vol. 4, No. 4, pp. 81-90, 2005.
- Zhu, F., Mutka, M., and Ni, L., "Facilitating Secure Ad hoc Service Discovery in Public Environments," Journal of Systems and Software, vol. 76, 1, pp. 45-54, 2005.
- Zhu, F., Zhu, W., Mutka, M., and Ni, L., "Expose or Not? A Progressive Exposure Approach for Service Discovery in Pervasive Computing Environments," Proceedings of the 2005 IEEE Annual Conference on Pervasive Computing and Communications (Percom 2005), 2005.
- Zhu, F., Mutka, M., and Ni, L., "PrudentExposure: A Private and User-centric Service Discovery Protocol," Proceedings of the 2004 IEEE Annual Conference on Pervasive Computing and Communications (Percom 2004), March 2004.

Zhu, F., Mutka, M., and Ni, L., “Facilitating Secure Ad hoc Service Discovery in Public Environments,” Proceedings of the 2003 IEEE Computer Software and Applications Conference (Compsac 2003), November 2003.

Zhu, F., Mutka, M., and Ni, L., “Splendor: A Secure, Private, and Location-aware Service Discovery Protocol Supporting Mobile Services,” Proceedings of the 2003 IEEE Annual Conference on Pervasive Computing and Communications (Percom2003), March 2003.

## **Patents**

Zhu, F., Zeng, M., Carpenter, S., “Eye Gaze Based Dynamic Warnings.” (US patent)

Mukta, M., Zhu, F., Ni, L., “Private entity authentication in pervasive computing environments”. (US patent)

## **Funding**

Zhu, F., Yoo, S., Li, W., Pan, W., Adhami, R., “PSP: A Novel Framework to Teach Students Security and Privacy for Pervasive Computing Environments,” NSF, \$199,996.

Carpenter, S., Zhu, F., “SBES: Small: Developing Countermeasures to Mitigate Psychology Cyber-Attacks on Personal Identity Information, NSF, \$464,123.

Zhu, F. “An Infrastructure for Cybersecurity and Privacy Research in the Post-PC era,” UAH, \$114,439.

## **Reviewer for**

Communications of the ACM, International Journal of Network Security, Journal of Defense Modeling and Simulation, IEEE Transactions on Mobile Computing, IEEE Pervasive Computing, IEEE Transactions on Vehicular Technology, Pervasive and Mobile Computing Wireless Communications and Mobile Computing, Journal of Systems and Software, EURASIP Journal on Wireless Communications and Networking, Information Sciences, International Journal of Computers and Applications, Ad Hoc & Sensor Wireless Networks, International Journal of Network Security, ACM Transactions on Autonomous and Adaptive Systems, Journal of Computer Networks and Communications