WEIPING PEI (Ph.D.)

Assistant Professor of Cyber Studies, The University of Tulsa

Email: weiping-pei@utulsa.edu Web: https://weipingpei.github.io/   Tel: (720)-645-6413

RESEARCH INTERESTS

Security and Privacy, Crowdsourcing, Machine Learning, Human-Computer Interaction

EDUCATION

Ph.D. in Computer Science, **Colorado School of Mines (MINES)**, USA, 2022

> Thesis: Security, Privacy, and Trust in Crowdsourcing Systems

M.Eng. in Software Engineering, **Sun Yat-sen University (SYSU)**, China, 2017

> Thesis: Water Army Recognition Based on User's Attribute Features and Behavioral Features

B.Eng. in Microelectronics, **Sun Yat-sen University (SYSU)**, China, 2015

WORK EXPERIENCE

Assistant Professor of Cyber Studies

> The University of Tulsa (TU), Tulsa, OK, USA**,** 08/2022 - present

Teaching Assistant/Research Assistant/Instructor

> Colorado School of Mines (MINES), Golden, CO, USA, 08/2017-08/2022

Machine Learning/Data Science Intern

> Appen, Sunnyvale, CA, USA, 02/2020-05/2020

GRANTS AWARDED

- **[NSF Grant]** Single PI, $174,906, NSF CISE Research Initiation Initiative (CRII), CNS-2246143, May 15, 2023-April 30, 2025.
- IEEE Security & Privacy Student Travel Grant, May 2022.
- GSG Travel Grant at MINES, 2022.
- Surplus Travel Grant at MINES, 2022.

HONORS AND AWARDS

- Distinguished Nominee of the university-level Rath Award for the Best PhD Thesis with the Potential for the Greatest Societal Impact at MINES, December 2022
- Outstanding CS PhD Student Award at MINES in 2021
- Grace Hopper Celebration (GHC) Student Scholarship in 2018
- Outstanding Graduate Student Scholarship at Sun Yat-sen University in 2015, 2016
- Honorable Mention in the International Mathematical Contest in Modeling in 2014
- Outstanding Undergraduate Student Scholarship at Sun Yat-sen University in 2012, 2013, 2014

PUBLICATIONS

[1] Anhao Xiang, **Weiping Pei**, and Chuan Yue. "PolicyChecker: Analyzing the GDPR Completeness of Mobile Apps' Privacy Policies." To appear in proceedings of the *ACM Conference on Computer and Communications Security* (**CCS**), 2023

[2] **Weiping Pei**, Yanina Likhtenshteyn, and Chuan Yue. "A Tale of Two Communities: Privacy of Third Party App Users in Crowdsourcing - The Case of Receipt Transcription." in *ACM Conference on Computer-Supported Cooperative Work and Social Computing* (**CSCW**), 2023

[3] **Weiping Pei** and Chuan Yue. "Generating Content-Preserving and Semantics-Flipping Adversarial Text." in *ACM ASIA Conference on Computer and Communications Security* (**AsiaCCS**), 2022 (acceptance rate: 18.4%).

[4] Zhiju Yang, **Weiping Pei**, Monchu Chen, and Chuan Yue. "WtaGraph: Web Tracking and Advertising Detection using Graph Neural Networks." in *IEEE Symposium on Security and Privacy* (**S&P**), 2022.

[5] **Weiping Pei**, Zhiju Yang, Monchu Chen, and Chuan Yue. "Quality Control in Crowdsourcing based on Fine-Grained Behavioral Features." in *ACM Conference on Computer-Supported Cooperative Work and Social Computing* (**CSCW**), 2021.

[6] **Weiping Pei**, Arthur Mayer, Kaylynn Tu, and Chuan Yue. "Attention Please: Your Attention Check Questions in Survey Studies Can Be Automatically Answered." in *The Web Conference* (**WWW**), 2020.

[7] Youye Xie, Zifan Wang, **Weiping Pei**, and Gongguo Tang. "Fast Approximation of Non-Negative Sparse Recovery via Deep Learning." in *IEEE International Conference on Image Processing* (**ICIP**), 2019.

[8] **Weiping Pei**, Youye Xie, and Gongguo Tang. "Spammer Detection via Combined Neural Network." in *International Conference on Machine Learning and Data Mining in Pattern Recognition* (**MLDM**), 2018.

[9] **Weiping Pei**, Jun Wang, Xubin Xu, Zhengwei Wu, and Xiaorong Du. "An embedded 6-axis sensor based recognition for tennis stroke." in *IEEE International Conference on Consumer Electronics* (**ICCE**), 2017.

TEACHING EXPERIENCE

Teaching at The University of Tulsa

- CYB 2004: Secure Software Development I, Fall 2023
- CYB 2013: Secure Software Development II, Spring 2024
- CYB 3363: Data Security and Cryptography, Fall 2022, Fall 2023
- CYB 8003: Research Seminar in Cyber Studies, Spring 2023

Teaching at Colorado School of Mines

- CSCI 474: Introduction to Cryptography, Spring 2022
- CSCI 574: Theory of Cryptography, Spring 2022
- CSCI 585: Information Security and Privacy, Fall 2021

Lab Developer

- Password Reuse Lab (lead creator) for the CNAP program
- Smartphone Motion Sensor Data Feature Extraction Lab (co-lead creator) for the NCCP program
- Smartphone Side-Channel-Attack Model Training Lab (lead creator) for the NCCP program
- Smartphone Motion Sensor Data Perturbation Defense Lab (lead creator) for the NCCP program

STUDENTS

- Current PhD Students: S M Zia Ur Rashid, Dapeng Zhang, Jun Zhang
- Current Undergraduate Students: Marina Katoh

PROFESSIONAL SERVICES AND ACTIVITIES

Service Activities

- Member of the School of Cyber Studies Faculty Search Committee, TU, 2022~2024
- Reviewer of an NSF proposal review panel, January 2023
- President of Women in Cybersecurity (WiCyS) Student Chapter at Mines, 10/2020-08/2022
- White-team member (i.e., competition official) for the Mines team in the Rocky Mountain Collegiate Cyber Defense Competition (RMCCDC), March 2021

Public and/or Invited Presentation

- "A Tale of Two Communities: Privacy of Third Party App Users in Crowdsourcing - The Case of Receipt Transcription". Presented at the ACM Conference on Computer-Supported Cooperative Work And Social Computing, October 2023.
- "Generating Content-Preserving and Semantics-Flipping Adversarial Text". Presented at the ACM ASIA Conference on Computer and Communications Security, June 2022.
- "Security Protection and Quality Control in Crowdsourcing", CAE Tech Talk, January 2022.
- "Quality Control in Crowdsourcing based on Fine-Grained Behavioral Features". Presented at the ACM Conference on Computer-Supported Cooperative Work And Social Computing, October 2021.
- "Attention Please: Your Attention Check Questions in Survey Studies Can Be Automatically Answered". Presented at The Web Conference (formerly known as The WWW Conference), April 2020.

Invited Guest Lecture and Teaching Activities

- Gave a talk on *Machine Learning Fundamentals* for Women in Cyber Security (WiCyS) student chapter at TU, February 2023.
- Advised three local high-school students on cybersecurity research during the summer, May-August 2020.
- Co-organized a 4-day *Introduction to Cryptography* professional development training workshop for local high-school and middle-school teachers, MINES, June 2019.
- Gave guest lectures on *SQL Injection Attacks and Defenses* in the CSCI 403 Database Management class, MINES, April 2019.
- Gave guest lectures on *L3 Cache Side-Channel Attacks* in the CSCI 440/563 Parallel Computing for Scientists and Engineers class, MINES, March 2019.
- Gave guest lectures on *Making Cyberspace Secure and Trustworthy* in the CSCI101 Introduction to Computer Science class, MINES, November 2018.

Journal Reviewing

- Science Advances, 2022
- Intelligent Automation & Soft Computing, 2022
- Vehicular Communications, 2023
- Behavior Research Methods, 2023
- ACM Transactions on Sensor Networks, 2023

Conference Reviewing

- ACM Conference on Intelligent User Interfaces (IUI) poster/demo, 2024
- Annual Meeting of the Association for Computational Linguistics (ACL), 2023
- Conference of the European Chapter of the Association for Computational Linguistics (EACL), 2023

- Conference on Empirical Methods in Natural Language Processing (EMNLP), 2022, 2021
- International Conference on Information and Communications Security (ICICS), 2022
- ACM Conference on Data and Application Security and Privacy (CODASPY), 2022, 2021, 2020, 2019
- Annual IEEE/IFIP International Conference on Dependable Systems and Networks (DSN), 2020
- Annual Security Conference (ASC), 2023

Additional Activities

- Attended CRA-W Grad Cohort Workshop for Women in April 2019.
- Attended Rocky Mountain Celebration of Women in Computing (RMCoWC) in November 2018.
- Attended Grace Hopper Celebration (GHC) in September 2018.
- ACM member.