

Song Liao

Curriculum Vitae

Personal information

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Education

- 2019 - Present **Clemson University** *Clemson, SC*
Ph.D Candidate in Computer Science
 - Advisor: Long Cheng
 - GPA: 4.00/4.00
- 2015 - 2018 **Xi'an Jiaotong University** *Xi'an, China*
Master of Engineering in Software Engineering
 - Advisor: Yuehu Liu
- 2011 - 2015 **Xi'an Jiaotong University** *Xi'an, China*
Bachelor of Engineering in Software Engineering

Pulications

- 2022 **Useenix Security** Jeffrey Young*, **Song Liao***, Long Cheng, Hongxin Hu and Huixing Deng, *SkillDe-
tective: Automated Policy-Violation Detection of Voice Assistant Applications in the
Wild*, In 31st USENIX Security Symposium (USENIX Security), 2022, Acceptance
rate: 256/1414 = 18%, (Co-first author)
- 2021 **IEEE Security &
Privacy Magazine** **Song Liao**, Christin Wilson, Long Cheng, Hongxin Hu and Huixing Deng, *Proble-
matic Privacy Policies of Voice Assistant Applications*, IEEE Security & Privacy,
19(6):66–73, 2021
- 2021 **ICMLA** Mingqi Li, **Song Liao**, Ebuka Okpala, Max Tong, Matthew Costello, Long Cheng,
Hongxin Hu, and Feng Luo, *COVID-HateBERT: a Pre-trained Language Model
for COVID-19 related Hate Speech Detection*, In 2021 20th IEEE International
Conference on Machine Learning and Applications (ICMLA) pages 233–238. IEEE
- 2021 **Journal of Hate
Studies** Matthew Costello, Long Cheng, Feng Luo, Hongxin Hu, **Song Liao**, Nishant
Vishwamitra, Mingqi Li and Ebuka Okpala, *COVID-HateBERT: a Pre-trained
Language Model for COVID-19 related Hate Speech Detection*, Journal of Hate
Studies, 17(1), 108–118.
- 2020 **ACSAC** **Song Liao***, Christin Wilson*, Long Cheng, Hongxin Hu, and Huixing Deng,
Measuring the effectiveness of privacy policies for voice assistant applications, In
Annual Computer Security Applications Conference (ACSAC), page 856–869, 2020,
Acceptance rate: 70/302 = 23%
Distinguish Paper Award
- 2020 **CCS** Long Cheng, Christin Wilson, **Song Liao**, Jeffrey Young, Daniel Dong, and Hongxin
Hu., *Dangerous skills got certified: Measuring the trust-worthiness of skill certi-
fication in voice personal assistant platforms*, In Proceedings of the 2020 ACM
SIGSAC Conference on Computer and Communications Security, pages 1699–1716,
2020, Acceptance rate: 121/715 = 16.9%

Poster

- 2022 **Song Liao**, Long Cheng, *Poster: Understanding the Policy-Compliance Practices of Voice Application Developers*, IEEE Secure Development Conference (SecDev), 2022, Poster
- 2019 Long Cheng, Ebuka Okpala, **Song Liao**, Danfeng(Daphne) Yao, *BranchCorr: Detecting Incompatible Branch Behavior by Enforcing Branch Correlation Integrity*, IEEE Secure Development Conference (SecDev), 2019, Poster

Teaching

- Spring 2023 **CC 8570 Network Technologies Security**, Graduate Teaching Assistant
- Fall 2022 **CS 6200/4200 Computer Security Principles**, Graduate Teaching Assistant
- Summer 2022 **CS 6200/4200 Computer Security Principles**, Graduate Teaching Assistant
- Spring 2021 **CS 6200/4200 Computer Security Principles**, Graduate Teaching Assistant

Paper Review

- TDSC IEEE Transactions on Dependable and Secure Computing, 2023
- IJHCI International Journal of Human-Computer Interaction, 2023
- ICDCS International Conference on Distributed Computing Systems, 2023
- INFOCOM IEEE International Conference on Computer Communications, 2021, 2022
- ACSAC Annual Computer Security Applications Conference, 2020, 2021, 2022
- ICPADS IEEE International Conference on Parallel and Distributed Systems, 2022
- CNS IEEE Conference on Communications and Network Security, 2020, 2021
- IPCCC International Performance Computing and Communications Conference, 2020, 2021
- GLOBECOM IEEE Global Communications Conference 2019, 2020
- iThings IEEE International Conference on Internet of Things, 2019

Service

- December 2020 Volunteer for ICMLA 2020 (help session chairs manage sessions)

Awards

- January 2023 Talford Endowed Fellowship Award
- October 2022 NSF Travel Award, IEEE SecDev 2022, Atlanta, GA
- August 2022 Talford Endowed Fellowship Award
- December 2020 Distinguish Paper, Annual Computer Security Applications Conference (ACSAC)
- July 2020 Google awarded us \$5,000 bug bounty for discovering vulnerabilities of Google Actions.

Media and News

- July 2021 We presented our work on Policy-Violation Detection of Voice Assistant Applications at the FTC's PrivacyCon 2021.
- May 2021 Google awarded us a bug bounty for reporting various policy-violating Google Actions.
- August 2020 We presented our work on Trustworthiness of Skill Certification in Voice Personal Assistant Platforms at the FTC's PrivacyCon 2020.
- July 2020 The Register, Washington Internet Daily, ZDNet and some others reported our work on measuring the trustworthiness of Alexa's skills certification.

Presentations

December 2020 Annual Computer Security Applications Conference (ACSAC), 2020

Skills

Languages Python, C/C++, Latex, JavaScript

Libraries Pandas, NumPy, Matplotlib, spaCy, NetworkX, BeautifulSoup

Tools Git, HTML/CSS, Github, Amazon Mechanical Turk

Software Bash, Vim, Gephi, Jupyter, Eclipse