

Tian Xie

CONTACT INFORMATION	Homepage: https://www.cse.msu.edu/~xietian1/ Email: xietian1@msu.edu	
RESEARCH INTERESTS	Mobile/wireless networks and systems, security and privacy, Internet of things, data analysis	
EDUCATION	Ph.D. , Computer Science and Engineering, Michigan State University, East Lansing, Michigan	<i>Jan. 2017 – Present</i>
	B.Sc with honor, Electrical and Computer Engineering Michigan State University, East Lansing, Michigan	<i>Sep. 2013 – Dec. 2016</i>
POSITION	Michigan State University , East Lansing, MI <ul style="list-style-type: none">Research Assistant	Jan 2017 – Present
	Apple , Cupertino, CA <ul style="list-style-type: none">R&D Software Engineer Intern	May 2022 – Aug 2022
	Google , Mountain View, CA <ul style="list-style-type: none">R&D Software Engineer Intern	Sep 2021 – Dec 2021
	Michigan State University , East Lansing, MI <ul style="list-style-type: none">Undergraduate Research Assistant	Jan 2016 – Dec 2016
PUBLICATIONS	[TMC’22] Tian Xie†, Sihan Wang†(†: co-primary), Xinyu Lie, Jingwen Shi, Guan-Hua Tu, Chi-Yu Li. ‘ <i>MPKIX: Towards More Accountable and Secure Internet Application Services via Mobile Networked Systems</i> ’ Accepted to IEEE Transactions on Mobile Computing.	
	[MobiCom’22] Yiwen Hu, Min-Yue Chen, Guan-Hua Tu, Chi-Yu Li, Sihan Wang, Jingwen Shi, Tian Xie , Xiao Li, Chunyi Peng, Zhaowei Tan, Songwu Lu. ‘ <i>Uncovering Insecure Designs of Cellular Emergency Services (911)</i> ’ Accepted to ACM MOBICOM’22	
	[ToN’22] Yu-Han Lu, Sandy Hsin-Yu Hsiao, Chi-Yu Li, Yi-Chen Hsieh, Po-Yi Chou, Yao-Yu Li, Tian Xie , Guan-Hua Tu. ‘ <i>Insecurity of Operational IMS Call Systems: Vulnerabilities, Attacks, and Countermeasures</i> ’ Accepted to IEEE Transactions on Mobile Computing.	
	[TMC’21] Tian Xie , Guan-Hua Tu, Chi-Yu Li, and Chunyi Peng. ‘ <i>How Can IoT Services Pose New Security Threats In Operational Cellular Networks?</i> ’ Accepted to IEEE Transactions on Mobile Computing.	
	[CODASPY’21] Xinyu Lei, Guan-Hua Tu, Tian Xie , and Sihan Wang. ‘ <i>BFastPay: A Routing-free Protocol for Fast Payment in Bitcoin Network</i> ’ Accepted to ACM CODASPY’21.	

[CODASPY'21] Yiwen Hu, Sihan Wang, Guan-Hua Tu, Li Xiao, **Tian Xie**, Xinyu Lei, and Chi-Yu Li. '*Security Threats from Bitcoin Wallet Smartphone Applications: Vulnerabilities, Attacks, and Countermeasures*' Accepted to ACM CODASPY'21.

[MobiCom'21] Sihan Wang, Guan-Hua Tu, Xinyu Lei, **Tian Xie**, Chi-Yu Li, Po-Yi Chou, Fucheng Hsieh, Yiwen Hu, Li Xiao, Chunyi Peng. '*Insecurity of Operational Cellular IoT Service: New Vulnerabilities, Attacks, and Countermeasures*' Accepted to ACM MOBICOM'21.

[TMC'20] **Tian Xie**, Guan-Hua Tu, Bangjie Yin, Chi-Yu Li, Chunyi Peng, Mi Zhang, Hui Liu, and Xiaoming Liu. '*The Untold Secrets of WiFi-Calling Services: Vulnerabilities, Attacks, and Countermeasures*' Accepted to IEEE Transactions on Mobile Computing.

[MobiCom'20] Yu-Han Lu, Chi-Yu Li, Yao-Yu Li, Sandy Hsin-Yu Hsiao, **Tian Xie**, Guan-Hua Tu, Wei-Xun Chen. '*Ghost Calls from Operational 4G Call Systems: IMS Vulnerability, Call DoS Attack, and Countermeasure*' Accepted to ACM MOBICOM'20.

[MobiSys'20] Xinyu Lei, Guan-Hua Tu, Chi-Yu Li, **Tian Xie**, Mi Zhang. '*SecWIR: Securing Smart Home IoT Communications via Wi-Fi Routers with Embedded Intelligence*' Accepted to ACM MOBISYS'20.

[ICDCS'20] Xinyu Lei, **Tian Xie**, Guan-Hua Tu and Alex X. Liu. '*An Inter-blockchain Escrow Approach For Fast Bitcoin Payment (Extended Abstract)*' Accepted to IEEE ICDCS'20.

[CNS'20] Xinyu Lei, Guan-Hua Tu, Alex X. Liu, **Tian Xie**. '*Fast and Secure kNN Query Processing in Cloud Computing*' Accepted to IEEE CNS'20.

[SSCT'19] **Tian Xie**, Sihan Wang, Guan-Hua Tu, Chi-Yu Li, Xinyu Lei. '*Exploring the Insecurity of Google Account Registration Protocol via Model Checking*' Accepted to IEEE SSCT'19.

[CNS'18] **Tian Xie**, Guan-Hua Tu, Chi-Yu Li, Chunyi Peng, Jiawei Li, and Mi Zhang. '*The Dark Side of Operational Wi-Fi Calling Services.*' Accepted to IEEE CNS'18.

[CNS'18] Lei, Xinyu, Guan-Hua Tu, Alex X. Liu, Chi-Yu Li, and **Tian Xie**. '*The Insecurity of Home Digital Voice Assistants-Vulnerabilities, Attacks and Countermeasures.*' Accepted to IEEE CNS'18.

[ICC'18] **Tian Xie**, Chi-Yu Li, Jiliang Tang, and Guan-Hua Tu. '*How Voice Service Threatens Cellular-Connected IoT Devices in the Operational 4G LTE Networks.*' Accepted to IEEE ICC'18.

[NEMS'17] **Tian Xie**, Xiaopeng Bi, Rui Luo, Fan Bin, Zhe Wang, and Wen Li. '*Optical propagation of blue LED light in brain tissue and Parylene-C.*' Accepted to IEEE NEMS'17.

[TBioCAS'17] Xiaopeng Bi, **Tian Xie**, Bin Fan, Wasif Khan, Yue Guo, and Wen Li. '*A flexible, micro-lens-coupled LED stimulator for optical neuromodulation.*' Accepted to IEEE Transactions on Biomedical Circuits and Systems.

HONORS & AWARDS

- ACM MobiCom Best Community Paper Award Runner-Up 2022
- Dissertation Completion Fellowship 2022
- Google Android Security Reward 2019
- Graduate Office Fellowship 2019
- Kaggle Competition Gold Medal 2018
- Kaggle Competition Bronze Medal 2018
- IEEE CNS Travel Grant 2018
- IEEE CNS Best Paper Award 2018
- Graduate Office Fellowship 2018
- Graduate Office Fellowship 2017
- B.Sc Graduation with Honor 2016
- MSU Capstone Design Second Prize 2016
- Dean's List 2016
- Dean's List 2015
- Dean's List 2014
- Dean's List 2013

TEACHING EXPERIENCE

- Teaching Assistant: CSE 824 Advanced Computer Networks and Communications, Michigan State University, Fall 2022
- Teaching Assistant: CSE 320 Computer Organization and Architecture, Michigan State University, Summer 2020
- Teaching Assistant: CSE 476 Mobile App Development, Michigan State University, Fall 2019
- Teaching Assistant: CSE 425 Intro to Computer Security, Michigan State University, Fall 2018
- Teaching Assistant: CSE 425 Intro to Computer Security, Michigan State University, Spring 2018
- Teaching Assistant: CSE 476 Mobile App Development, Michigan State University, Fall 2017
- Teaching Assistant: CSE 422 Computer Network, Michigan State University, Spring 2017
- Undergraduate Assistant: ECE 313 Control Systems, Michigan State University, Spring 2016

ACADEMIC SERVICE

Technical Program Committee

- ACM Mobicom S3 2019

Conference Reviewer

- Infocom2023, BigData2023, Mobicom2022, CNS2022, Mobicom2021, IFIP2020, VNC2020, BigData2020, BigData2019, IFIP2019, ICDCS2019, Globalcom2019, VNC2018

Journal Reviewer

- IEEE Transactions on Information Forensics & Security, IEEE Transactions on Mobile Computing, IEEE/ACM Transactions on Networking, Computer Networks