

Tiffany Bao

CONTACT 699 South Mill Avenue
INFORMATION Arizona State University
Tempe, AZ 85281
Email: tbao@asu.edu

PROFESSIONAL **Assistant Professor, Arizona State University** 2018 – present
APPOINTMENTS

EDUCATION **Doctor of Philosophy, Carnegie Mellon University** 2012 – 2018
Department of Electrical and Computer Engineering

Bachelor of Science, Peking University 2008 – 2012
School of Electrical Engineering & Computer Science
Department of Computer Science

PUBLICATIONS CrawlPhish: Large-scale Analysis of Client-side Cloaking Techniques in Phishing.
Penghui Zhang, Adam Oest, Haehyun Cho, Zhibo Sun, RC Johnson, Brad Wardman, Shaown Sarker, Alexandros Kapravelos, **Tiffany Bao**, Ruoyu Wang, Yan Shoshitaishvili, Adam Doupé, Gail-Joon Ahn.
To appear in *Proceedings of the IEEE Symposium on Security and Privacy (Oakland '21)*.

Exploiting Uses of Uninitialized Stack Variables in Linux Kernels to Leak Kernel Pointers.
Haehyun Cho, Jinbum Park, Joonwon Kang, **Tiffany Bao**, Ruoyu Wang, Yan Shoshitaishvili, Adam Doupé, Gail-Joon Ahn.
In the *14th USENIX Workshop on Offensive Technologies (WOOT '20)*.

Not All Coverage Measurements Are Equal: Fuzzing by Coverage Accounting for Input Prioritization.
Yanhao Wang, Xiangkun Jia, Yuwei Liu, **Tiffany Bao**, Dinghao Wu, and Purui Su.
In the *Network and Distributed System Security Symposium (NDSS '20)*.

Cyber Autonomy in Software Security (Book Chapter).

Tiffany Bao and Yan Shoshitaishvili.

In *Game Theory and Machine Learning for Cyber Security*.

Matched and Mismatched SOCs: A Qualitative Study on Security Operations Center Issues.

Faris Bugra Kokulu, Ananta Soneji, **Tiffany Bao**, Yan Shoshitaishvili, Ziming Zhao, Adam Doupé, and Gail-Joon Ahn

In *Proceedings of the 2019 ACM SIGSAC Conference on Computer and Communications Security (CCS '19)*.

Understanding and Predicting Private Interactions in Underground Forums.

Zhibo Sun, Carlos E. Rubio-Medrano, Ziming Zhao, **Tiffany Bao**, Adam Doupé, and Gail-Joon Ahn.

In *the 9th ACM Conference on Data and Application Security and Privacy (CODASPY '19)*.

Your Exploit is Mine: Automatic Shellcode Transplant for Remote Exploits.

Tiffany Bao, Ruoyu Wang, Yan Shoshitaishvili, and David Brumley.

In *Proceedings of the 38th IEEE Symposium on Security and Privacy (Oakland '17)*.

How Shall We Play a Game: A Game-theoretical Model for Cyber-warfare.

Tiffany Bao, Yan Shoshitaishvili, Ruoyu Wang, Christopher Kruegel, Giovanni Vigna and David Brumley.

In *Proceedings of the 30th IEEE Computer Security Foundations (CSF '17)*.

National Security Agency's Annual Scientific Paper Award.

Security is a Game.

Tiffany Bao.

In *2017 USENIX Summit on Hot Topics in Security (HotSec '17)*.

Awarded Talk.

A Game-theoretical Model for Cyber-warfare Games. (Invited Poster)

Tiffany Bao, Yan Shoshitaishvili, Ruoyu Wang and David Brumley.

In *the 8th Workshop on Computational Cybersecurity in Compromised Environments (C3E '16)*.

ByteWeight: Learning to Recognize Functions in Binary Code.

Tiffany Bao, Jonathan Burket, Maverick Woo, Rafael Turner, and David Brumley.

In *Proceedings of the 23rd USENIX Security Symposium (USENIX '14)*.

Type-based Dynamic Taint Analysis Technology.

Libo Chen, Jianwei Zhuge, Fan Tian, **Tiffany Bao**, and Xun Lu. In *Tsinghua Science and Technology Journal*, 2012.

Research of Technology for Type-based Dynamic Taint Analysis.

Libo Chen, Jianwei Zhuge, Fan Tian, **Tiffany Bao**, and Xun Lu. In *Proceedings of the 5th Conference of Vulnerability Analysis and Risk Assessment (VARA '12)*.

Outstanding Paper Award.

PROFESSIONAL
ACTIVITIES

Program Committee Member

ACM SIGSAC Conference on Computer and Communications Security. 2020
Network and Distributed System Security Symposium. 2019
International Symposium on Research in Attacks, Intrusions and Defenses. 2020
ACM Workshop on Automotive and Aerial Vehicle Security. 2020
(Affiliated with the ACM Conference on Data and Application Security and Privacy.)
Network and Distributed System Security Symposium. 2019
Annual Computer Security Applications Conference. 2019
Workshop on Binary Analysis Research. 2018, 2019, 2020
(Affiliated with the Network and Distributed System Security Symposium.)

Journal Reviewer

ACM Transactions on information and System Security.
Communications of the ACM.
IEEE Transactions on Software Engineering.
IEEE Transactions on Knowledge and Data Engineering.

CTF Game Organizer

Member of the DEF CON CTF hosting team. 2019

Student Committee Member

IEEE Symposium on Security and Privacy. 2016

External Reviewer

The Network and Distributed System Security Symposium. 2014
The ACM Conference on Computer and Communications Security. 2013

	Mentor	
	Google Summer of Code.	2013
	Contributor	
	<i>Introduction to Algorithm and Olympiad in Informatics.</i> ISBN:9787302291077	2011
	<i>Network Hacking and Defense.</i> ISBN: 9787121138027	2010
SELECTED AWARDS	National Security Agency's Annual Scientific Paper Award.	2018
	Awarded Talk at 2017 USENIX Summit on Hot Topics in Security.	2017
	Carnegie Mellon University Presidential Fellowship.	2017
TEACHING EXPERIENCE	CSE 545: Software Security.	2020
	CSE 591: Computer Security: Techniques and Tactics.	2019
PROFESSIONAL EXPERIENCE	Research Internship, University of California Santa Barbara.	2016
	Research Internship, Tsinghua University.	2012
	Member, the Honeynet Project.	2011-2013
	Research Assistant, Peking University.	2010-2012