

# JINWEN WANG

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<https://jinwenwang.github.io>

## EDUCATION

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**Washington University in St. Louis**

*Sep 2019 - Present*

Ph.D. in Computer Science (GPA 3.88/4.0)

**Tsinghua University**

*Sep 2016 - Jun 2019*

M.S. in Computer Science (Rank 2/29)

**Sichuan University**

*Sep 2012 - Jun 2016*

B.E. in Computer Science (Rank Top 10%)

## RESEARCH INTERESTS

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System Security, Software Security, Cyber-Physical System

## PUBLICATIONS

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### Main Conference Papers

[Security 23] **ARI: Attestation of Real-time Mission Execution Integrity.** Jinwen Wang, Yujie Wang, Ao Li, Yang Xiao, Ruide Zhang, Wenjing Lou, Y. Thomas Hou, and Ning Zhang, *USENIX Security*, 2023.

[DAC 23] **IP Protection in TinyML.** Jinwen Wang, Yuhao Wu, Han Liu, Bo Yuan, Roger Chamberlain, and Ning Zhang, *ACM/IEEE Design Automation Conference*, 2023, (Acceptance Rate: 23%)

[RTNS 23] **A Procrastinating Control-Flow Integrity Framework for Periodic Real-Time Systems.** Tanmaya Mishra, Jinwen Wang, Thidapat Chantem, Ryan Gerdes and Ning Zhang, *International Conference on Real-Time Networks and Systems*, 2023.

[Oakland 22] **RT-TEE: Real-time System Availability for Cyber-physical Systems using ARM TrustZone.** Jinwen Wang, Ao Li, Haoran Li, Chenyang Lu, and Ning Zhang, *IEEE Symposium on Security and Privacy*, 2022, (Acceptance Rate: 147/1012=14.5%).

[IROS 22] **From Timing Variations to Performance Degradation: Understanding and Mitigating the Impact of Software Execution Timing in SLAM.** Ao Li, Han Liu, Jinwen Wang, and Ning Zhang, *IEEE/RSJ International Conference on Intelligent Robots and Systems*, 2022.

### Workshop Papers

[VehicleSec 23] **Demo: Real-time System Availability for Cyber-physical Systems using ARM TrustZone.** Jinwen Wang, Ao Li, Haoran Li, Chenyang Lu, and Ning Zhang, *Inaugural Symposium on Vehicle Security and Privacy*.

[RTSS 22] **Work-in-Progress: Measuring Security Protection in Real-time Embedded Firmware.** Yuhao Wu, Yujie Wang, Shixuan Zhai, Zihan Li, Ao Li, Jinwen Wang, and Ning Zhang, *IEEE Real-Time Systems Symposium*, 2022.

[CCS 21] **Chronos: Timing Interference as a New Attack Vector on Autonomous Cyber-physical Systems.** Ao Li, Jinwen Wang, and Ning Zhang, *ACM SIGSAC Conference on Computer and Communications Security*, 2021.

## SKILLS

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Programming languages: C, C++, and Python.

Kernel Programming: Linux kernel modification, device driver modification.

Compiler Customization: Software Instrumentation using LLVM, GCC.

Reverse Engineering: Ghidra

## AWARDS

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| Qualcomm Best Demo Award Runner Up       | <i>2023</i> |
| Travel Grant in RTSS                     | <i>2022</i> |
| Dean's International Fellowship (Top 1%) | <i>2019</i> |
| China National Scholarship (Top 1%)      | <i>2013</i> |

## SERVICES

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### **Subreviewers:**

IEEE/ACM Transactions on Networking

### **External Reviewer:**

2023: ACM Asia CCS

2022: ACM CCS, ACM Asia CCS, IEEE INFOCOM

2021: ISOC NDSS, IEEE INFOCOM

2020: ISOC NDSS, IEEE INFOCOM

2019: IEEE INFOCOM