

## Shen Wang

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### EDUCATION

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**Northwestern Polytechnical University (NWPU)**

**Xi'an, China**

*Bachelor of Engineering (B.E.)*

*09/2020 - 07/2024*

**GPA:** 83.1/100 **Major:** Information Security

**Relevant Coursework:** Network Security, Computer Operating System and Security, Data Structure and Algorithms, Probability Theory and Mathematical Statistics, System Design of Information Security, Actual Combat Ability Training of Cybersecurity Offense-defense Confrontation, Cryptography

### PUBLICATIONS

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1. **Shen Wang**, Yijie Xun, Jie Zhao, and Yuanyuan Sun. "A Novel Personnel Counting Method Based on WiFi Perception", in IEEE 23rd International Conference on High Performance Switching and Routing (HPSR), June 2022.

### RESEARCH EXPERIENCE

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**Active-probing Internet of Things Botnet Detection System**

**Xi'an, China**

Group Member

*02/2023 - present*

- Mastered the working mode of P2P botnets, node attributes, and communication protocols, including the DHT protocol.
- Applied Wireshark to capture traffic packets when botnet nodes attack other hosts with vulnerabilities and analyzed the propagation characteristics of botnets.
- Implemented Python to draft scripts to establish communication with suspicious network nodes, determined whether it was a botnet node, marked it, and added it to the database.

**Research on Intrusion Detection of Unmanned Aerial Vehicles (UAVs)**

**Xi'an, China**

Group Member

*06/2022 - 08/2022*

- Proposed a drone detection scheme based on changes in PWR (received signal power) values.
- Used the low-cost SDR device HackRF One to conduct GPS position spoofing attacks on the drone with team members.

**Indoor Human Counting Scheme Based on Wi-Fi Sensing**

**Xi'an, China**

Group Leader

*12/2021 - 04/2022*

- Utilized routers and modified hardware to capture Wi-Fi packets and extracted channel state information (CSI) to conduct people counting experiments.
- Collaborated with team members to develop a classification model using LSTM neural networks and obtained high counting accuracy of more than 98% in our proposed scheme.
- Assisted in hiring volunteers and conducting human counting experiments in three different indoor environments.

### HONORS & AWARDS

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- Second prize, NWPU "Internet +" Innovation and Entrepreneurship Competition *06/2022*
- Second Prize, NWPU Excellent Student Scholarship *09/2022*

### ADDITIONAL SKILLS

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- **Languages:** Mandarin (native), English (CET-6: 544, GRE: 321+3)
- **Software:** Python, C++/C, JavaScript, Latex