

Zhicong Sun

(+852) 9482 1052 Hong Kong, China zhiconsun_cs@163.com [Homepage](#)

EDUCATION

- 2020 - 2023: M.E. in Computer Science, Southern University of Science and Technology (SUSTech)
Supervisors: Prof. Shuang-Hua Yang, Prof. Yulong Ding; GPA: 3.2/4.
- 2016 - 2020: B.Eng. in Communication Engineering, Harbin Institute of Technology (HIT)
Supervisor: Prof. Changjun Yu; GPA: 80.08/100, Comprehensive GPA: 83.08/100, ranking 31/104.

PUBLICATIONS

- **[IoTJ'24]** [Zhicong Sun](#), Yulong Ding, Shuang-Hua Yang, “Contradictions Identification of Safety and Security Requirements for Industrial Cyber-Physical Systems”, *IEEE Internet of Things Journal*, 13 November 2023, Doi: 10.1109/JIOT.2023.3332128.[\[PDF\]](#) (26-page long article)
- **[IET-CPS'24]** [Zhicong Sun](#), Guang Chen, Yulong Ding, Shuang-Hua Yang, “Joint Safety and Security Risk Analysis in Industrial Cyber-Physical Systems: A Survey”, *IET Cyber-Physical Systems: Theory & Application*, 14 June 2024, Doi: 10.1109/JIOT.2023.3332128.[\[PDF\]](#)
- **[INFOCOM'24]** Xincheng Zhang and Running Zhao, Zhihan Jiang, [Zhicong Sun](#), Yulong Ding, Edith C.-H. Ngai, Shuang-Hua Yang, “AOC-IDS: Autonomous Online Framework with Contrastive Learning for Intrusion Detection”, *IEEE International Conference on Computer Communications*, Accepted.[\[PDF\]](#)
- **[TCYB'24]** Guang Chen and [Zhicong Sun](#) (co-first authors), Yulong Ding, Shuang-Hua Yang, “Risk Assessment for Cyber-Physical Systems under Stealth Attacks”, *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, Under Review.[\[PDF\]](#)

AWARDS & HONORS

National-Level (3 items):

- Second Prize in the Final Tournament of the 18th RoboMaster University Championship, China University Robot Competition, 2019 (Leader).
- Grand Prize (Champion) in the 7th China Marine Vehicle Design and Construction Contest, 2018 (Leader).
- Participation Award in ICRA RoboMaster AI Challenge, 2019 (Member).

Provincial-Level (6 items):

- Second Prize in the South China Division of the 15th China Graduate Electronic Design Contest, 2020 (Leader).
- Second Prize in Preliminary Contest of Business Plan of the 15th China Graduate Electronic Design Contest, 2020 (Deputy leader).
- Grand Prize (Second Place) in the North China Division of the 18th Robomaster University Technical Challenge, 2019 (Leader).
- First Prize in the Northern Division of the 18th RoboMaster University Championship, China University Robot Competition, 2019 (Leader).
- Third Prize in the University Student Science and Technology Innovation Competition, Shandong, 2018 (Deputy leader).
- Third Prize in the Northern Division of the 17th RoboMaster University Championship, China

University Robot Competition, 2018 (Leader).

University-Level (10 items):

- First Prize in the HITwh Internal Contest of the Shandong *Science and Technology Innovation Competition*, 2018 (Deputy leader).
- Second Prize in the 1st HITwh *Headmaster Cup Science and Technology Contest*, 2018 (Leader).
- First Prize of the HITwh *Artificial Intelligence and Intelligent Hardware Contest*, 2018 (Leader).
- **Top 10 Influential Graduates**, 2020. (ranking 2nd, elected by each college and voted by dozens of experts and professors on the spot)
- Science and Technology Innovation Scholarship, 2019, 2018.
- Excellent Volunteer, 2018.
- Social Work Scholarship, 2017.
- Sports Excellence Scholarship, 2017.

School-Level (2 items):

- Outstanding Individual in Scientific and Technological Innovation, 2019.
- Outstanding Communist Party Member, 2018.

RESEARCH EXPERIENCES

Dealing with Security and Safety (S&S) Contradictions for Industrial Cyber-Physical Systems

SUSTech, Advisor: Prof. Shuang-Hua Yang

Sept 2021 - Jun 2023

- Achievements: published two papers as first author, respectively in IoT-J and IET-CPS, and another one on formal verification is under preparation.
- This work has been recognized by the RAMS & TTE Labs at **Huawei** Munich Research Center, and we have co-researched on its application to Huawei's self-driving automobile.

Others

- Electronic Control of Robots in Robomaster (China University Robot Competition)
- Direction Estimation of Ionospheric Echo based on High-Frequency Ground Wave Radar, obtained a score of 95 in the graduation thesis review, ranking 2nd in my major; appraised as an **excellent graduation thesis** in my major.

TEACHING EXPERIENCE

CS324 Internet of Things | *Teaching Assistant*

2022 Spring

LANGUAGES & SKILLS

- Languages: Chinese (native), English (fluent, TOFEL: 101).
- Programming: Python, Matlab, C/C++, Java.
- Others: Machine Learning, Evolutionary Computation, Embedded System Development (ARM, FPGA, FreeRTOS, RT-Thread), Robot Operating System.

INTERNSHIP EXPERIENCES

- **Standard Robots, Co., Ltd** | Electronic Control Group Jul 2020 - Aug 2020
- **ZTE Corporation** | Wireless Communication Group Jan 2020 - Feb 2020
- **Huawei HK Research Center** | Researcher, 2012 Theory Lab Apr 2024 - May 2024

LEADERSHIP

- **HIT Robot Contest Team (HRCT)** | *Vice Captain* Aug 2017 - Aug 2019
- **HIT Maker Space** | *Head* Sept 2017 - Feb 2018

Updated in June 2024