

# Bowen Sun (孙博文)

PhD Student

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## Education

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**Tsinghua University, Beijing, China**

2024 - present

*PhD student, Institute for Network Sciences and Cyberspace*

GPA: 3.88/4.0

Advisors: Research Prof. Hewu Li

Research interests: Satellite Networks, Automatic Control Theory.

**Tsinghua University, Beijing, China**

2020 - 2024

*Bachelor, Department of Automation*

GPA: 3.56/4.0

## Publications

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### Conference Publications

1. **Small-scale LEO Satellite Networking for Global-scale Demands.**

Yuanjie Li, Yimei Chen, Jiabo Yang, Jinyao Zhang, **Bowen Sun**, Lixin Liu, Hewu Li, Jianping Wu, Zeqi Lai, Qian Wu, Jun Liu.

*To appear at ACM Special Interest Group on Data Communication (SIGCOMM' 25)*

## Research and Projects

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1. **SRT: Key Technology Research on Autonomous Driving in Open Environments.**

*Researcher, 2021*

**Description:** Focused on key technologies for autonomous driving in open environments, including control strategy safety evaluation and video understanding based on deep neural networks.

**My Role:** Collected experimental data using the simulation model provided by the Jackal hardware platform.

**Outcome:** The simulation passed safety tests for the control strategy.

2. **Course Project: Search Algorithm Programming for Intelligent Mahjong.**

*Team Leader, 2022*

**Description:** Developed a Mahjong AI using search algorithms and Python.

**My Role:** Designed the program framework, implemented core algorithms, and created the game UI.

**Outcome:** Successfully implemented a two-player Mahjong game.

3. **Course Project: Network Planning Based on Slime Mold Growth Characteristics.**

*Team Member, 2023*

**Description:** Modeled and predicted Physarum polycephalum growth and foraging networks using neural network algorithms.

**My Role:** Cultivated Physarum polycephalum; applied CycleGAN to learn its growth patterns.

**Outcome:** (1) Verified learning behavior of the CycleGAN model; (2) Improved the pix2pix model for capturing slime mold network structures.

## Selected Awards and Honors

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- Four-Star Zijing Volunteer in Beijing 2022 Winter Olympics.

2022