



Tianhai Wang (王 天海)

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About Me

I am currently a M.Phil. student at College of Information and Electrical Engineering, China Agricultural University, where I work on intelligent navigation for agricultural machinery.

Research interest: object detection and tracking, few/zero-shot learning, open set recognition, LiDAR-camera fusion, simultaneous localization and mapping (SLAM), and related applications such as autonomous vehicles, field robotics, and smart agriculture.

Announcement: I am looking for a challenging and satisfying Ph.D. position (Fall 2024) that will commensurate with educational background.

Education

China Agricultural University (985 Project)

Master of Philosophy in Agricultural Electrification and Automation

09/2021-06/2024

- GPA: 3.6/4.0 (88.27/100)
- Main research direction: Intelligent navigation for agricultural machinery

Guangxi University (211 Project)

Bachelor of Engineering in Mechanical and Electronic Engineering

09/2017-06/2021

- GPA: 3.32/5.0 (83.24/100)
- Major Courses: Control Engineering, Electrician and Electronics, Mechanical Principle and Design, etc.

Skills

Programming

- Python, MATLAB, C/C++

Framework

- PyTorch, Robot Operating System (ROS)

Language

- Chinese, English (Preparing for IELTS)

Publications

First author:

- **T. Wang**, N. Wang, J. Xiao, Y. Miao, Y. Sun, H. Li, M. Zhang*. One-shot domain adaptive real-time 3D obstacle detection in farmland based on semantic-geometry-intensity fusion strategy. *Computers and Electronics in Agriculture*. 2023. (SCI, JCR Q1, **IF=8.3**)
- **T. Wang**, B. Chen, N. Wang, Y. Ji, H. Li, M. Zhang*. Zero-shot obstacle detection using panoramic vision in farmland. *Journal of Field Robotics*. 2023. (SCI, JCR Q1, **IF=8.3**)
- **T. Wang**, B. Chen, Z. Zhang, H. Li, M. Zhang*. Applications of machine vision in agricultural robot navigation: A review. *Computers and Electronics in Agriculture*. 2022. (SCI, JCR Q1, **IF=8.3**)

- **T. Wang**, Y. Liu, M. Wang, Q. Fan, H. Tian, X. Qiao*, Y. Li*. Applications of UAS in crop biomass monitoring: a review. *Frontiers in Plant Science*. 2021. (SCI, JCR Q1, **IF=5.6**)

Co-author:

- N. Wang, X. Yang, **T. Wang**, J. Xiao, M. Zhang, H. Wang, H. Li*. Collaborative path planning and task allocation for multiple agricultural. *Computers and Electronics in Agriculture*. 2023. (SCI, JCR Q1, **IF=8.3**)
- N. Wang, Y. Han, Y. Wang, **T. Wang**, M. Zhang, H. Li*. Research Progress of Agricultural Robot Full Coverage Operation Planning. 2022. (**EI**)
- H. Tian, **T. Wang**, Y. Liu, X. Qiao*, Y. Li*. Computer vision technology in agricultural automation—A review. *Information Processing in Agriculture*. 2020. (**EI, Cited by 363**)

Honours and Awards

Honours:

- 06/2023, Honorary title of “Outstanding Postgraduate Teaching Assistant” of China Agricultural University
- 10/2022, First Class Scholarship for Postgraduate
- 06/2021, Honorary title of “Outstanding Graduate” of Guangxi University
- 05/2021, Outstanding Bachelor Thesis of Guangxi University
- 12/2020, National Encouragement Scholarship
- 09/2020, Outstanding Assessment of National Innovation Program for Undergraduate (Leader)
- 12/2019, Honorary title of “Outstanding Undergraduate” of Guangxi University
- 12/2019, National Encouragement Scholarship

Awards:

- 04/2020, Guangxi College Students Innovation Design and Production Competition, 3rd Prize
- 12/2019, National College Students Intelligent Agricultural Equipment Innovation Competition, 2nd Prize
- 11/2019, China College Students ‘Internet+’ Innovation and Entrepreneurship Competition in Guangxi Division, Bronze Medal
- 10/2019, National 3D Innovative Design Annual Competition in Guangxi Division, 2nd Prize
- 07/2019, National 3D Innovative Design Elite Competition in Guangxi Division, 2nd Prize
- 07/2019, National University Students Electrical Math Modeling Competition, 3rd Prize
- 06/2019, China University Robot Competition ROBOCON, 3rd Prize
- 06/2018, National College Students Mechanical Innovation Design Competition in Guangxi Division, 3rd Prize

Service

- Student Member, Chinese Society of Agricultural Engineering
- Teaching Assistant, Fall 2022&2023 Intelligent Navigation Technology Course