

DINGHAN WANG

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Education

Northwestern Polytechnical University, Shaanxi, China

Sep 2022 - Present

M.Eng. System Engineering

90/100 CGPA

- Postgraduate recommendation
- Research interests: Deep Reinforcement Learning, Computer Vision, Intelligent Systems, UAV, Control Systems, Game Theory

Northwestern Polytechnical University, Shaanxi, China

Sep 2018 - Jun 2022

B.Eng. Detection, Guidance and Control Technology

3.46/4 GPA, 10/65 RANK

- Distinguished Graduate
- Outstanding Graduation Project
- Full marks in Theoretical Mechanics, Principle of Automatic Control I and Computational Methods courses.

Publications

- Jiandong Zhang, **Dinghan Wang**, Qiming Yang, Zhuoyong Shi, Longmeng Ji, Guoqing Shi, Yong Wu. Loyal wingman task execution for future aerial combat: A hierarchical prior-based reinforcement learning approach[J]. Chinese Journal of Aeronautics. (**co-first author**), **SCI JCR Q1 STATUS: online**
- Xiaoyang Li, Teng Wang*, **Dinghan Wang***, Hairuo Zhang, Ying Zhou, Deyun Zhou. Intelligent Decision-Making Algorithm for Airborne Phased Array Radar Search Tasks Based on a Hierarchical Strategy Framework[J]. Chinese Journal of Aeronautics. (**co-correspondence author**), **SCI JCR Q1 STATUS: initial accept**
- **Dinghan Wang**, Longmeng Ji, Jingbo Wang, Zhuoyong Shi, Jiandong Zhang, Qiming Yang, Guoqing Shi, Yong Wu, Yan Zhu, Jinwen Hu. Dogfight Advantage Occupancy Method Based on Imperfect Information Self-play[C]. IEEE ICCA 2024. (**first author**), **STATUS: accept**
- **Dinghan Wang**, Jiandong Zhang, Qiming Yang*, Jieling Liu, Guoqing Shi, Yaozhong Zhang. An Autonomous Attack Decision-Making Method Based on Hierarchical Virtual Bayesian Reinforcement Learning[J]. IEEE Transactions on Aerospace and Electronic Systems. (**co-first author**), **SCI JCR Q1 TOP STATUS: major revision**
- Zhuoyong Shi, Yetao Jia, Yong Wu, Kexin Zhang, Longmeng Ji, **Dinghan Wang**. Design of motor skill recognition and hierarchical evaluation system for table tennis players[J]. IEEE Sensors Journal. **SCI JCR Q1 STATUS: published**
- Zhuoyong Shi, Guoqing Shi, Jiandong Zhang, **Dinghan Wang**, Tianyue Xu, Longmeng Ji, Yong Wu. Design of UAV Flight State Recognition System for Multi-sensor Data Fusion[J]. IEEE Sensors Journal. **SCI JCR Q1 STATUS: initial accept**
- Zhuoyong Shi, Liuming Yang, Yong Wu, **Dinghan Wang**, Jiandong Zhang, Anli Zhang. Design of motion pattern recognition system based on artificial intelligence methods[C]. IEEE ICCSI. **STATUS: published**
- Zhuoyong Shi, Mingyang Liu, Qiming Yang, Jieling Liu, **Dinghan Wang**, Jiandong Zhang. Autonomous Security Evaluation Model for UAV Based on Airborne Information[C]. IEEE ICICSP. **STATUS: published**

Projects

The Key R&D Projects in Shaanxi Province (No.2022GY-089)

Sep. 2022 - Present

Multimodal Recognition, Situational Awareness (Student Leader)

The Natural Science Basic Research Program of Shaanxi (No.2022J0-593)

Jun.2022 -Jan. 2024

Reinforcement learning: Intelligent Decision Making (Student Leader)

Technical Skills

Languages: Python, C, C++

Frontend: HTML, CSS, JavaScript

Clouds & Databases: MySQL, Tencent Cloud, Ali Cloud, Azure Cloud

Web Technologies: Docker, NAT(v4&v6), Nginx, HTTP, SSL

Operating Systems: Windows, Debian, Ubuntu, MacOS, OpenWRT, Proxmox VE

Tools: PyTorch, OpenCV, OpenDDS, Git, Vim

Honours and Awards

National Graduate Student Electronic Design Competition <i>Northwestern Regional First Prize, Team Award (Team Leader)</i>	Aug 2023
National Graduate Student Electronic Design Competition (Business Track) <i>Northwestern Regional Third Prize, Team Award</i>	Aug 2023
National College Students' Innovation and Entrepreneurship Training Program <i>Third Prize, Team Award (Team leader)</i>	Jun 2022
Distinguished Graduate	Jun 2022
Outstanding Graduation Project	AY 2020 - 2021
Scholarship from the School of Electronic Information (Twice)	AY 2019 - 2021

Experience

Academic Expeditions

- 2023 Future AI Masters and Global IT Training Camp
- Member of the Mathematics Modeling Association

Community Involvement

- Served as a distinguished undergraduate representative, sharing academic and graduate application experiences with fellow undergraduates.
- Shared experiences as a senior student in university career planning courses.
- Acted as a mental health committee member during both undergraduate and master's studies, organizing psychological counseling activities during the pandemic.
- Volunteered as a material transporter during the pandemic.