

Zhuoyong Shi

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EDUCATION

National University of Singapore

Jul. 2025 – Present

Ph.D. Science. Flexible Electronic System Full Funded by NUS Research Scholarships

- Advisor: Prof. Liu Xiaogang, Fellow of the Singapore National Academy of Science
- Research Interest: Flexible Electronic System, Machine Learning, Pattern Recognition

Northwestern Polytechnical University

Sep. 2022 – Apr. 2025

M.Eng. Electronic Science and Technology 3.82/4.0 GPA & 1/267 RANK

- Advisor: Prof. Wu Yong
- China National Scholarship (Twice); ITU Generation Connect Youth Envoy
- BaoGang Outstanding Student Scholarship (<0.01%); Academic First-Class Scholarship (Twice)

Xi'an Jiaotong University City College

Sep. 2018 – Jun. 2022

B.Eng. Electronic Information 85/100 GPA & 3/108 RANK

- Advisor: Prof. Zhang Anli
- Excellent graduation thesis; Distinguished Graduate; Academic Second Class Scholarship

PUBLICATIONS

Google Scholar: <https://scholar.google.com/citations?user=iizm6rEAAAAJ>

[J1] Jiandong Zhang, **Zhuoyong Shi***, Anli Zhang, et al. UAV Trajectory Prediction Based on Flight State Recognition [J], IEEE Transactions on Aerospace and Electronic Systems. (**SCI Q1 IF=5.1**)

[DOI: 10.1109/TAES.2023.3303854](https://doi.org/10.1109/TAES.2023.3303854)

[J2] **Zhuoyong Shi**, Guoqing Shi, Jiandong Zhang*, et al. Design of UAV Flight State Recognition System for Multi-sensor Data Fusion [J], IEEE Sensors Journal. (**SCI Q1 IF=4.3**)

[DOI: 10.1109/JSEN.2024.3394883](https://doi.org/10.1109/JSEN.2024.3394883)

[J3] **Zhuoyong Shi**, Jiandong Zhang, Guoqing Shi*, et al. Design of a UAV Trajectory Prediction System Based on Multi-Flight Modes [J], Drones. (**SCI Q1 IF=4.4**)

[DOI: 10.3390/drones8060255](https://doi.org/10.3390/drones8060255)

[J4] **Zhuoyong Shi**, Yetao Jia, Guoqing Shi*, et al. Design of motor skill recognition and hierarchical evaluation system for table tennis players [J], IEEE Sensors Journal. (**SCI Q1 IF=4.3**)

[DOI: 10.1109/JSEN.2023.3346880](https://doi.org/10.1109/JSEN.2023.3346880)

[J5] **Zhuoyong Shi**, Jiandong Zhang, Guoqing Shi*, et al. Autonomous UAV Safety Oriented Situation Monitoring and Evaluation System [J], Drones. (**SCI Q1 IF=4.4**)

[DOI: 10.3390/drones8070308](https://doi.org/10.3390/drones8070308)

[C1] **Zhuoyong Shi**, Mingyang Liu, et al. Autonomous Security Evaluation Model for UAV Based on Airborne Information [C], 2023 6th IEEE International Conference on Information Communication and Signal Processing.

[DOI: 10.1109/ICICSP59554.2023.10390620](https://doi.org/10.1109/ICICSP59554.2023.10390620)

[P1] Anli Zhang, **Zhuoyong Shi**, et al. An Evaluation Method for Aircraft Atmospheric Data Security Monitoring System [P], Invention Patent in China.

[Patent No: CN116662937B](https://patent.cn/16662937B)

COMPETITIONS

“Electrical Cup” China Undergraduate Mathematical Contest in Modeling National Top Prize , Team Award (<i>Team leader</i>)	Aug. 2021
The National Undergraduate Mathematics Competitions National First Prize , Individual Award (<i>Twice</i>)	Nov. 2021 & 2020
Interdisciplinary Contest In Modeling(ICM) Honorable Mention, Team Award (<i>Team leader</i>)	May 2021
National Student Statistical Analysis of Data Competition National Second Prize, Team Award (<i>Team leader</i>)	Jul. 2023
“HuaWei Cup” China Post-Graduate Mathematical Contest in Modeling National Third Prize, Team Award	Dec. 2023
China Undergraduate Mathematical Contest in Modeling(CUMCM) Shaanxi Province First Prize, Team Award (<i>Team leader</i>)	Sep. 2019
National Graduate Student Electronic Design Competition Northwestern Regional First Prize, Team Award	Jul. 2023
Shaanxi Higher Mathematics Competition for College Students Shaanxi Province First Prize, Individual Award	Oct. 2019

PROJECTS

Postgraduate Innovation and Practice Fund Project (No. 06080-24GH01020101) • <i>Pattern Recognition; Effectiveness Evaluation</i>	<i>Apr. 2024 – Present</i> (Project Leader)
The Key R&D Projects in Shaanxi Province (No. 2022GY-089) • <i>Multimodal Recognition; Situational Awareness</i>	<i>Sep. 2022 – Present</i> (Student Leader)
The Natural Science Basic Research Program of Shaanxi (No. 2022JQ-593) • <i>Reinforcement Learning; Intelligent Decision Making</i>	<i>Jun. 2022 – Jan. 2024</i> (Project Participants)
The Shaanxi Provincial Sports Scientific Research Project (No. 2021382) • <i>Monitoring Systems; Big Data Analysis</i>	<i>Sep. 2021 – Sep. 2022</i> (Student Leader)

SKILLS

Programming Languages: MATLAB, Python, C

Drawing Software: MATLAB, Python(matplotlib), Origin, Visio

Machine Learning Algorithms: SVM (Support Vector Machine), Random Forest, LSTM (Long Short Term Memory Network), Neural Network, Reinforcement Learning

EXPERIENCE

Academic Expeditions:

- 2023 Future AI Masters and Global IT Training Camp (First Place in Course Grades)
- Northwest University of Technology Summer Camp (Excellent Camper)

Programming Skills:

- Served as a teaching assistant in “MATLAB programming and application” courses
- Writing the textbook “MATLAB Programming and Application” ISBN:9787121449376

Planning Capability:

- Leadership in multiple competitions and projects leading teams to achieve assignments
- Division of research tasks into sub-tasks in scientific research according to systems engineering thinking.