

# Zhuoyong Shi

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## EDUCATION

<b>Northwestern Polytechnical University</b>	Sep. 2022 – Present
<b>Major&amp; GPA&amp; RANK:</b> Electronic Science and Technology (MPhil) 3.8 x/xx	
<b>Scholarship:</b>	
<b>Graduation Project:</b> Simulation of Air Surface Confrontation Strategy Based on "System Cluster"	
<b>Core Modules:</b> Large System Theory and Applications (98), Integrated Avionics Data Fusion Methods and System Architecture Design (94), Avionics Integrated Systems (90), Aviation System Simulation Testing and Analysis (90)	
<b>Xian Jiaotong University City College</b>	Sep. 2018 – Jun. 2022
<b>Major&amp; GPA&amp; RANK:</b> Electronic Information (Bachelor) 3.35 3/108	
<b>Scholarship:</b> Scholarship from the School of Electronic Information (twice)	
<b>Graduation Project:</b> Design of quadcopter UAV trajectory prediction system based on neural network (Outstanding Graduation Project)	
<b>Core Modules:</b> Advanced Mathematics (100), Probability Theory and Mathematical Statistics (94), Signals and Systems (96), Digital Electronic Technology (96), Circuit Fundamentals (93), Communication Electronic Circuits (97), C Language Programming (92), Linear Algebra (91), Digital System Design (91), College Physics Experiments (excellent), Electronic System Design Training (excellent), MATLAB Programming and Applications (excellent), Digital Electronic Technology Experiments (excellent)	

## RESEARCH INTEREST

Deep Learning, Intelligent Agent Collaborative Control, Reinforcement Learning, signal processing, mathematical modeling, embedded systems

## PUBLICATIONS

- [1] UAV Trajectory Prediction Based on Flight State Recognition [J], IEEE Transactions on Aerospace and Electronic Systems. Jiandong Zhang, **Zhuoyong Shi**\*, et al. DOI: 10.1109/TAES.2023.3303854
- [2] Design of motion pattern recognition system based on artificial intelligence methods [C], 2023 IEEE International Conference on Cyber-physical Social Intelligence. **Zhuoyong Shi**\*, et al. (accepted)
- [3] Design of Wireless Motion Sensor Node Monitoring System Based on LabVIEW[J], Foreign Electronic Measurement Technology. Anli Zhang, **Zhuoyong Shi**, et al. DOI: 10.19652/j.cnki.femt.2103232
- [4] Design of Intelligent Elevator Control System Based on Space Occupancy Determination [J], Application of Electronic Technique. Anli Zhang, Meng Xie, **Zhuoyong Shi**. DOI: 10.16157/j.issn.0258-7998.201037
- [5] An Intelligent Decision System for Airport Taxi Based on LabVIEW [J], Chinese Journal of Engineering Mathematics. Anli Zhang, **Zhuoyong Shi**\*, Yafei Song. (Peer Review)
- [6] Design of Recognition and Evaluation System for Table Tennis Players' Motor Skills Based on Artificial Intelligence [J]. IEEE Transactions on Instrumentation and Measurement, **Zhuoyong Shi**\*, et al. (Peer Review)
- [7] UAV flight states recognition and trajectory prediction based on trajectory feature construction [J], Aerospace Science and Technology, **Zhuoyong Shi**\*, et al. (Peer Review)
- [8] Autonomous Security Evaluation Model for UAV Based on Airborne Information [C], 2023 International Conference on Cyber-physical Social Intelligence, **Zhuoyong Shi**\*, et al. (Peer Review)
- [9] Recognition and Evaluation of Table Tennis Movement Skills Based on Feature Construction [J], Chinese Journal of Sensors and Actuators, Anli Zhang, **Zhuoyong Shi**\*(Peer Review)
- [10] Design of UAV Safety Monitoring System Based on LABVIEW [J], Chinese Journal of Sensors and Actuators, Anli Zhang, **Zhuoyong Shi**\*(Peer Review)
- [11] Design of Intelligent WiFi Car Control System Based on LabVIEW [J]. Automation & Instrumentation, Meng Xie, Ze Hui, Anli Zhang, **Zhuoyong Shi**. DOI: 10.19557/j.cnki.1001-9944.2020.12.005
- [12] An Evaluation Method for Aircraft Atmospheric Data Security Monitoring System[P], Invention Patent in China. Anli Zhang, **Zhuoyong Shi**

## HONOURS & AWARDS

“Electrical Cup” National Student Mathematical Modelling Competition	2021.8
National Top Prize, Team Award (team leader)	
National Mathematics Competition for University Students	2021.11&2020.11
National First Prize, Individual Award (twice)	
U.S. Collegiate Mathematical Modelling Contest	2021.5
International Second Prize, Team Award (team leader)	
National Student Statistical Analysis of Data Competition	2023.7
National Second Prize, Team Award (team leader)	
National University Student Mathematical Modelling Competition	2019.9
Shaanxi Province First Prize, Team Award (team leader)	
National Graduate Student Electronic Design Competition	2023.7
Northwestern Regional First Prize, Team Award	
Shaanxi Higher Mathematics Competition for College Students	2019.10
Shaanxi Province First Prize, Individual Award	

## PROJECT EXPERIENCE

<b>The Natural Science Basic Research Program of Shaanxi (No. 2022JQ-593)</b>	Jun. 2022 – Present
• Participated in the project and published 1 professional top paper	
<b>The Key R&amp;D Projects in Shaanxi Province (No. 2022GY-089)</b>	Sep. 2022 – Present
• Participated in the project and published 1 paper in the Journal of Engineering Mathematics	
<b>The Shaanxi Provincial Sports Scientific Research Project (No. 2021382)</b>	Sep. 2021 – Sep. 2022
• Participated in the project and published 1 paper on electronic measurement technology abroad	
<b>Intelligent Elevator System Design (Innovation and Entrepreneurship Project)</b>	Jan. 2021 – Sep. 2021
• Led the project and published a paper in electronic technology application journal with the mentor	
• Led projects to participate in Maker China and Innovation Competition respectively	

## CAMPUS EXPERIENCE

### Academic Expeditions:

- 2023 Future AI Masters and Global IT Training Camp(Achieved first place in course grades)
- Northwest University of Technology Summer Camp(Excellent Camper)

### Skills Certificate:

- Artificial Intelligence Development Certification from Huawei
- Big Data Analysis Technology Certification from the Ministry of Industry and Information Technology in China
- Mathematical Modeling Skills Certification from the Ministry of Industry and Information Technology in China
- Computer Technology and Software Professional Technical Qualification Certification from the Ministry of Industry and Information Technology in China

### Programming Skills:

Proficient in mainstream programming languages such as **MATLAB** and **Python**, with hardware development experience such as **STM32**, and experience in graphical programming languages such as **LabVIEW**.

- Participated in writing the textbook “*MATLAB Programming and Application*” ISBN:9787121449376
- Served as a teaching assistant in “*MATLAB programming and application*” courses
- Achieved the highest performance in the 2023 AI summer camp based on the Python programming
- Published paper titled “Design of Intelligent Elevator System Based on Space Occupancy”
- Achieved excellent results in Electronic System Design Training (excellent)
- Use STM32 when participating in electronic design competitions
- Develop multiple visualization panels based on LabVIEW, including publishing two papers

### Passion for Sports:

After class, I enjoy the joy of sports and enjoy sports such as table tennis, long-distance running, badminton, etc. Won twice male singles championships in table tennis during college; During my graduate studies, I won a runner up in table tennis men's singles and a championship in men's doubles, and finished in the 2023 Shaanxi University Marathon.