

YILEI ZHONG

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EDUCATION

Northwestern Polytechnical University

Xi'an, Shaanxi, China

Bachelor of Aerospace Science and Technology

Sep 2020 – July 2024

- Related Course: Machine Learning(100), Python Programming Language(98), Pattern Recognition and Machine Learning(96), Project Design of Space Robot(95)

PROJECT

Aviation Technology Innovation Center, Northwestern Polytechnical University

Xi'an, Shaanxi, China

Project team leader, supervised by Prof. Qing Guo

Sep 2020 – Oct 2021

- Purpose: Designed a fixed-wing UAV independently to achieve specified reconnaissance and strike missions.
- Content: Built a GUI interface for receiving drone reconnaissance data; conducted outdoor drone flight tests and data collection; Deployed basic computer vision recognition model(Yolov5).
- Outcome: Won the first prize at the national level in the 2021 China International Aircraft Design Challenge.

Department of Electronic Information, Northwestern Polytechnical University

Xi'an, Shaanxi, China

Project team member, supervised by Prof. Wen Jiang

Apr 2021 – May 2023

- Purpose: Built a neural network to detect differences in remote sensing images at multiple times.
- Content: Augmented images for subsequent machine learning projects; used CRF method to finely the image post-processing; built and debugged the basic BIT-CD neural network.
- Outcome: Received an excellent completion of the project.

Space Operation Technology Lab, Northwestern Polytechnical University

Xi'an, Shaanxi, China

Project team leader, supervised by Prof. Zhiqiang Ma

Apr 2022 – May 2023

- Purpose: Deploy corresponding programs on the robotic arm system to drive the robotic arm's operations in the digital twin scenario.
- Content: Built the PVnet neural network according to the CVPR paper; deployed the neural network to the upper computer of the robotic arm system; conducted relevant experiments on visual positioning.
- Outcome: Received an excellent completion of the project; won one national first prize and two provincial first prizes based on project achievements and cooperation with other teams.

SELECTED AWARDS AND HONORS

- China International Aircraft Design Challenge, National First Prize Oct 2021
- Shaanxi Province Industrial Engineering Improvement Creative Competition, Provincial First Prize Jul 2022
- China College Students' 'Internet+' Innovation and Entrepreneurship Competition, Provincial Gold Award Jul 2023
- China Marine Vehicle Design and Production Competition, National First Prize Aug 2023
- National University IoT Design Competition, National Second Prize Aug 2023
- China College Student Computer Design Competition, National Second Prize Aug 2023
- China Aerospace Science and Technology Corporation Scholarship, Third Prize Oct 2023

EXTRACURRICULAR ACTIVITIES

- Northwestern Polytechnical University Student Union, Officer Sep 2021 – Jun 2022
- Aviation Technology Innovation Center, Team Leader Sep 2021 – Sep 2022
- Computer Game Competition Innovation Design Competition (Photography Competition), Third Prize Aug 2023

SKILLS

Computer Programming: C, C++, Python (Pytorch), Matlab(basic); QT(basic)

Graphic Design Software: Adobe Lightroom, Photoshop

Language: English(Passed CET6, but not yet participated in IELTS)