Personal Particular

Name: Wang Wuyue **Gender**: Male

Date of Birth: Apr. 8th, 2004 **Country**: China

Education Background

Harbin Institute of Technology, Bachelor of Engineering Aug. 2022 - Now

- School of Future Technology, Control Science and Technology
- Tutor: Prof. Guo Yanning

Research Achievements

Space-Based Non-Cooperative Target Anomaly Detection & Threat Assessment (Capstone Design)

- Developed algorithms for non-cooperative space target feature recognition, attitude measurement, and anomaly detection based on Python, utilizing ROS2 and equipped with Qt interactive interface.
- Validated using IssacSim & STK, achieving target feature recognition accuracy $\geqslant$95%, instantaneous attitude measurement error $\leqslant$3°, and anomaly detection rate $\geqslant$90%.

Planetary Landing Site Selection Using Multi-Modal Information Fusion. accepted by **FASTA2025**

- Proposes a cross-modal fusion framework that synergistically combines depth perception and texture analysis for enhanced terrain assessment in extraterrestrial environments.

Project Experience

Research on Generation & Representation Fusion Methods for Space-Based Multi-Source Heterogeneous Data Mar. 2025 - Now

- Beijing Institute of Control Engineering (BICE) Ongoing cross research project
- Validated using IssacSim & STK, achieving target feature recognition accuracy $\geqslant$95%, instantaneous attitude measurement error $\leqslant$3°, and anomaly detection rate $\geqslant$90%.

New-Generation Space Wide-Field White-Light Coronagraph Mar. 2024 - Present

- LilacSat-4 (CORBES-S7) payload, the first domestic space wide-field white-light coronagraph; Scheduled for launch in 2026; Design the electrical system & camera; awarded Silver Prize in" Challenge Cup" & Second Prize in the CAIC.

Radar-Based Moving Target Perception for Crossing Applications Oct. 2023 - Oct. 2024

- **National** College Student Innovation Training Program Completed; Responsible for visual algorithm design to meet the requirements of moving target detection and recognition at level crossings, achieving fusion of multi-radar image data and optical image data.

ASRTU-1 Flight Control Work Oct. 2024 - Dec. 2024

- Participated in the development and setup of ground station software, including initial emergency handling and mission planning; optimized GNSS orbit determination algorithms and real-time attitude display web pages;

Lunar Emergency Robot Jun. 2025 - Now

- Shanghai Institute of Aerospace Systems Engineering Ongoing crossing research project
- Developed voice and telemetry bidirectional communication modules based on AMBE vocoder.

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Leadership Experience

President, HIT Youth Volunteer Association Sept. 2024 - Now

- Independently developed an online management system serving 60,000+ participants.
- Served as student lead for major events including New Student Welcoming (Red Cap) and Science Camp, recruiting 2,000+ volunteers with cumulative service exceeding 10,000 hours.
- Organized/participated in 60+ volunteer initiatives with personal service hours **450 hours**.

Director, New Media Center, School of Future Technology, HIT Sept. 2023 - Sept. 2024

- Produced promotional materials (posters, displays) and designed reusable social media templates.
- Managed official WeChat/QQ accounts, authored 100,000+ view news articles.
- Conducted skill-building workshops (photography/Photoshop) benefiting 100+ participants.

Vice President, HIT Astronomy Enthusiasts Association Sept. 2023 - Sept. 2024

- Orchestrated Space Science Forum (China Space Day) and Northeast China Collegiate Astronomy Competition, featured in Today HIT (official campus media).
- Provided technical support for Space Day livestream covered by People's Daily and HIT.
- Managed club assets, curated outreach programs including public stargazing lectures at Harbin Planetarium.

Technical Skills

- Proficient in Office, skilled in Photoshop (PS), Premiere (PR), and other editing tools, with experience in graphic design, video production, and photography.
- Proficient in C, Python, Matlab, and JavaScript programming languages; experienced with Linux systems and Docker containers.Skilled in PCB design using Altium Designer (AD) and LCEDA.
- Proficient in simulation software such as Multisim, STK, GMAT, Adams, CST, and Zemax.
- Experienced with embedded development tools including Keil and CubeMX; familiar with MCUs from ST and TI, as well as development boards like Raspberry Pi and Jetson.
- Holder of Class B Amateur Radio Operator Certificate; knowledgeable in radio technology and development on USRP SDR platform using GNURadio.
- Proficient in deep learning frameworks such as TensorFlow and PyTorch.
- Skilled in developing OpenCV & Qt applications in C++ & Python; proficient with ROS & FreeRTOS.
- Familiar with building & deploying web platforms using Flask or JS backend & HTML frontend.

Awards and Honors

- National 1st Prize, NUEDC (Top 1.8%) 2023
- Silver Award, 14th "Challenge Cup" College Student Entrepreneurship Competition 2024
- Bronze Award (University Level), CICSIC 2025
- Second Prize, 1st "SparkLink Cup" Collegiate Intelligent Challenge 2023
- Runner-up, CAIC 2024
- 1st-Class Scholarship (3-time recipient)
- Nominee for Top 10 HIT Social Practice Teams (Leader) 2025
- Outstanding Student Cadre, HIT 2024
- Outstanding Communist Youth League Member, HIT 2023
- Outstanding Student, HIT 2023
- National Outstanding Volunteer, Youth Science Camp, CAST 2023
- Outstanding Elderly-Assistance Volunteer, HIT
- Top 10 Patriotic Education Micro-Videos (Cinematography & Editing,),HIT 2023

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