Yanbo Pan

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EDUCATION

University of Michigan | Ann Arbor, MI   August/2022 – May/2025
Bachelor of Science: Astronomy & Astrophysics, Interdisciplinary Physics, Statistics (GPA 4.0/4.0)
- Relevant Coursework: *Data Science Programming, Differential Equations, Linear Algebra, Probability, Introductory Physics (5 semesters), Exoplanets, Methods in Theoretical Physics, Modern Astronomical Techniques*

Involvements: Mrover, Student Astronomical Society, Transfer Connections
University of Wisconsin-Madison | Madison, WI
Attended September/2021 – May/2022
Honors: Dean's List (GPA 4.0/4.0)
Involvements: Greenhouse Learning Community, Greater University Tutoring Drop-in

RELEVANT EXPERIENCE

Undergraduate Research, Astronomy Department | University of Wisconsin, WI   June/2023 – Present
Research assistant (Advisor: Robert D. Mathieu)
- Simulate binary stars' orbit to analyze stellar populations within the WIYN open cluster survey
- Design and test MCMC algorithms to modal stellar orbits, reducing observing demands for the Apogee project
- Present research results at the American Astronomical Society (*Planned 2024 summer*)

Undergraduate Research, Astronomy Department | University of Michigan, MI   January/2023 – Present
Research assistant (Advisor: Eric F. Bell)
- Detect ultra-dwarf satellite galaxies to understand dark matter distribution in the local group
- Code cluster detecting algorithms to verify existence of known ultra-dwarf galaxies using python packages
- Showcase research findings at the Astronomy department's annual undergraduate poster fair and the American Astronomical Society (*Planned 2025 Winter*)

Mrover | University of Michigan, MI   September/2022 – May/2023
Member (astrobiology team)
- Develop 5 quantitative chemical tests to analyze soil and rock samples for signs of extinct and extant life
- Collaborate with the Instrumentation & Sample Handling team to make chemical tests work in real-time onboard rover for the annual University Rover Challenge

The L.R. Ingersoll Physics Museum | UW-Madison, WI   September/2021 – April / 2022
Museum Docent
- Build detailed knowledge of Physics and locations to thoroughly answer guest questions
- Clarify demonstrations, point out overlooked features, and offer further details about special exhibits
- Conduct lab-escape with UIUC and held open-house events during the Wisconsin Science Festival

SKILLS & INTERESTS

Technical: Astronomical Research Data Analysis, C++ & R & Python (pandas, numpy, matplotlib, scikit-learn, etc)
Languages: Mandarin Chinese (Native / Bilingual)