

# Ruocheng Zhai

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<https://ruochengzhai.github.io>

## Education

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2020 - present    **Tsinghua University**, Beijing, China  
                    **B. S. Physics** (Expected June 2024)  
                    **GPA:** [3.86/4.0]  
                    **Relevant Coursework:** Observational Astronomy, High Energy Astrophysics ...  
2017 - 2020      **Chongqing Nankai Secondary School**, Chongqing, China

## Honors and Awards

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2023    Visiting Undergraduate Research Program Fellowships, Caltech  
2022    Comprehensive Excellence Scholarship, Tsinghua University  
2022    Academic Excellence Scholarship, Tsinghua University  
2020    Freshman Scholarship, Tsinghua University

## Publication

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- [1] **Zhai, R.**, Poleski, R., Zang, W., et al. 2023, submitted to AJ, [arXiv:2312.08635](https://arxiv.org/abs/2312.08635)  
*OGLE-2017-BLG-0448Lb: A Low Mass-Ratio Wide-Orbit Microlensing Planet?*
- [2] **Zhai, R.**, Rodriguez, A. C., Lam, C. Y., et al. 2023, submitted to ApJ, [arXiv:2311.18627](https://arxiv.org/abs/2311.18627)  
*Microlensing Events in Five Years of Photometry from the Zwicky Transient Facility*

## Research Experience

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2023/07 - 2023/10    VURP Fellow, California Institute of Technology, CA, USA  
                            *Search for ZTF microlensing events in DR17*  
                            *Analyze JWST background field emission lines*  
                            Advisors: Shrinivas R. Kulkarni & Charles A. Beichman  
2022/01 - 2023/06    Undergraduate Researcher, Tsinghua University, Beijing, China  
                            *Analyze KMTNet planetary microlensing events*  
                            Advisor: Shude Mao

## Presentations and Talks

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2023/10    ZTF II 5th Science Meeting, Pasadena, CA  
                    *A Systematic Search for Microlensing Events in ZTF DR17*  
2023/08    Caltech SURF Final Presentation, Pasadena, CA  
                    *Progress in Searching for ZTF Microlensing Events*

## Service

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| 2021/06 - 2022/07 | Enrollment volunteer of Tsinghua University at Chongqing<br><i>Help high school students learn majors and departments of Tsinghua University</i>       |
| 2021/03 - 2021/07 | Outfield Work at Vaccination Spots, Tsinghua University<br><i>Provide outfield services for students at vaccination spots</i>                          |
| 2020/11 - 2020/12 | Group Review, Tsinghua University<br><i>Give lectures to fellow students to help review knowledge for final exams</i>                                  |
| 2020/10 - 2022/04 | Campus Services, Tsinghua University<br><i>Clean the campus lawn and activity rooms</i>  |
| 2020/09 - 2021/06 | Profound Bond with Alma Mater, Tsinghua University<br><i>Make posters, write articles, and give speeches to solve concerns of high school students</i> |

## Skills

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- **Programming:** Python (Numpy, emcee, scipy, Jupyter Notebook), C++, Mathematica, Unix/Linux,  $\LaTeX$ .
- **Languages:** English (advanced), Chinese (native).