CONTACT Information

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EDUCATION

University of California, Berkeley, Berkeley, CA

2021 - 2025 (expected)

Last update: August 20, 2021

• Intended Majors: Astrophysics, Applied Math, & Computer Science, Current GPA: 4.0.

Stanford Pre-Collegiate University-Level Online Math, Online.

2020-2021

• Courseworks: Linear Algebra (A), Multivariable Calculus (A+A)

Suzhou High School of Jiangsu Province, Suzhou, Jiangsu, China.

2018-2021

- Honors: S.-T. Yau High School Science Award (Physics) Second Prize, NHSMUN Best Delegate, SMUN Outstanding Delegate, AP Scholar ('19, '20, '21), Fan Zhongyan Scholarship ('20, '21).
- Received 11 5s in AP Exams including Physics 1/2/Mechanics/E&M, Calculus BC, Chemistry, & Computer Science A.

Phillips Exeter Academy Summer, Exeter, NH.

2018-2018

• Courseworks: Writing (Honor Grade), Quantum Physics and Relativity (Honor Grade), Astrophysics (Honor Grade), Lifeguarding (Certified), Orchestra (Piano), & Harp.

RESEARCH EXPERIENCE

Summer Science Programs, Astrophysics, Student Researcher.

Jun. 2020 – Jul. 2020.

- Operated research-grade telescopes and manipulated JPL-Horizons to take images of the asteroids;
- Performed data reduction with AstroImageJ and SAO DS9;
- Drafted report and published the data to Minor Planet Center;
- o Calculated its six orbital elements of 2003 GE42 with Method of Gauss based on Python;
- Completed an error analysis with Monte Carlo simulations;
- $\circ\,$ Predicted the chance of the asteroid Earth impacting in the future;
- Wrote a 32-page paper of 2003 GE42 Orbital Determination paper in a group of three.

Polar Institute of China, Theoretical Physics, Student Researcher. Mar. 2020 – Dec. 2020.

- Conducted research in a theoretical method of detecting early exoplanets through gravitational microlensing singularly, including discussing superluminal motion, cosmological distances, machine learning algorithms for auto-classifying microlensing events;
- o Conducted graph-making, model-fitting, calculations, and simulations with Python;
- Wrote a 46-page paper & presented at Fudan University; awarded for S.-T. Yau High School Science Award.

Independent Research, Exoplanet, Student Researcher.

 $Jan.\ 2020-Mar.\ 2020.$

Conducted research on Transit Time Variations and its Application in Detecting & Characterizing
Unseen Planets with Discussion in Kepler-46, including discussing mean motion resonance and
analyzing the stability of the different systems, graphing and simulating with Python, guided by
Professor Tucker from Brown University.

Skills Pro

Programming Languages:

- Python (NumPy/SciPy/AstroPy/Matplotlib/VPython/Pandas/Scikit-learn),
- Java, R. Javascript, MATLAB.

Computer Software:

- LaTeX, AstroImageJ, SAO DS9, Stellarium,
- G Suite, Microsoft Office, Adobe Premiere Pro, Notion.

Languages:

• English, Mandarin (Fluent), French (Intermediate).