

# Ruoyan Wang

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## Education

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► **B.S. in Geophysics**, *Sept.2018 - Jun.2022 (Expected)*

*University of Science and Technology of China (USTC), Hefei, China*

**Overall GPA:** 3.56/4.30 (Average Score: 85.96/100), **Total Credits:** 136.5

**First year GPA:** 3.08/4.30, **Sophomore year GPA:** 3.83/4.30

**Core courses:** Theoretical Mechanics (90/100), Electrodynamics (96/100), Electronic Circuits (95/100), Physical Geology (95/100), Computational Methods (89/100), Optics and Atomic Physics (90/100), The Gravity and the Tide of the Earth (90/100)

## Research Interests

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► **Earth's Interior**

Deep mantle, D" discontinuity, Large Low Shear Velocity Province

► **Seismology**

Seismic tomography, Wave propagation

► **Planet Science**

Structure and evolution of planetary bodies

## Teaching Assistance Experience

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► **Electrodynamics**

## Research Experience

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◇ **Research Intern, School of Earth and Space Sciences, USTC**

*Sept.2020-  
Jan.2021*

*Advisor: Professor Zhu Mao*

**Project: Phase transitions of Magnesium fluoride at room temperature and high pressure**

- use the diamond anvil cell and ruby fluorescence technique to measure the pressure in a static high-pressure cavity
- analyze the Raman spectrum and the shift of characteristic peaks to determine the transition points
- $\text{MgF}_2$  undergoes phase transitions at 9.0GPa, 13.9GPa and 36.7GPa which is basically consistent with theoretical calculation
- won the first prize in the university physics research experiment paper competition

- ◇ **Research Team Leader, School of Earth and Space Sciences, USTC** *Jun.2020-present*  
*Advisor: Professor Daoyuan Sun*  
**Project: Study of the D" layer structure beneath the northwest Pacific**

- sample the lower mantle of the Northwest Pacific Ocean and study its velocity structure using the seismic data from the stations in Alaska
- analyze the waveform anomalies of related seismic phases
- infer the dynamical connection between the subducted plate and the shear wave low velocity anomalies in this area

## Awards & Scholarships

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- Outstanding Student Scholarship, Silver Award, USTC *2019 - 2020*  
*Sophomore year*
- Incoming Student Scholarship, Bronze Award, USTC *Oct 2018*

## Skills

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- ▶ **Mathematics Programs:** (La)TeX, Origin, MATLAB
- ▶ **Programming:** Linux(Shell), gmt, SAC, C, Fortran, IDL
- ▶ **Standard Tests:** TOEFL: 97/120 (R:29 L:25 S:20 W:23), CET6: 621/750
- ▶ **Other Interests:** Piano, Table Tennis, Skateboard