

# JIALE SUN

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Hefei, Anhui, China

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## EDUCATION

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### University of Science and Technology of China (USTC)

3th Year, B.S in Atomic and Molecular Physics

*August 2019 - Present*

- Cumulative GPA: 3.87/4.3
- Ranking: 10%
- Core Courses & Scores: Theoretical Mechanics A : 95, Electrodynamics A : 95
- Graduate course : Advanced Quantum Mechanics (Taking), Computational Physics (Taking)

### University of Oxford

Summer Online Courses Project

*August 2021*

Course selcet: Quantum Computing : 100

## RESEARCH EXPERIENCE

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### <sup>40</sup>Ca<sup>+</sup> Ion Trap

*November 2021- Present*

*Advisor: Dr. Kamran Rehan*

We are working on quantum information processing and quantum thermodynamics using <sup>40</sup>Ca<sup>+</sup> trapped-ions. While reading papers to equip myself in this field, I am also doing some data analyzing in Matlab and experimental work.

I find myself quite interested in this area and have made up my mind to continue my research on it during my PhD.

### Room-temperature Optomechanical Squeezing

*November 2021 - Present*

*Advisor: Prof. Zeng-Ming Zhang*

We are working on using specific film, which can significantly weaken the thermal fluctuations, to impose radiation-driven interaction of a coherent light field with a mechanical oscillator that induces correlations to produce squeezed light.

### Quantum information

*August 2021- November 2021*

*Advisor: Prof. Chao-Yang Lu*

I just read some paper about quantum computing and quantum information as well as taking a online class in Oxford but didn't do any experimental work.

### Impact of Shutdown and Production on Air Pollution During Epidemic

*August 2020- June 2021*

*Advisor: Prof. Cheng-Long Shen*

We established a rough model to quantitatively analyze the impact of exhaust emissions from factories and automobiles on air pollution, as well as the degree of shutdown during the epidemic during Spring Festival in 2020 and wrote a paper in Chinese.

## COMPUTER SKILLS

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Advanced level: Python, Matlab, Latex.

Intermediate level: Mathematica, C, Markdown.

## HONORS AND AWARDS

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1. National Encouragement Scholarship at USTC 2021 (The highest honor for students from rural places )
2. Excellent Student Award: Silver Award at USTC 2020 (Top 10 % in all physics majors)
3. Guoyuan Security Award at USTC 2020
4. National College Students Mathematical Competition: The Third Prize in 2020.

## STANDARD TESTS

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- TOELE IBT: 95, Reading: 29, Listening: 25, Writing: 22, Speaking: 19

## TEACHING EXPERIENCES

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**Teaching Asstant**

*2021 fall semester*

*Classical Mechanics and Electrodynamics, taught by Prof. Gan Qin*

## PERSONAL INTERESTS

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Apart from physics, I love playing guitar, playing computer games and do some computer programming like web crawler. I have written some useful web crawler and posted them on Github.

One more thing, I am also a big fan of a Japanese manga called *Attack On Titan*.