

Sihe Chen

Ph.D. Candidacy, California Institute of Technology

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EDUCATION

California Institute of Technology (Caltech)

Sep 2021-

Grad Student, Planetary Sciences option, Geological and Planetary Sciences (GPS) department

GPA: 4.00/4.00

National University of Singapore (NUS)

Aug 2016-May 2020

BEng, Mechanical Engineering Dept. (Expected graduation: Jun 2020) GPA: 4.96/5.00

Second Major in Physics GPA: 5.00/5.00

University of California, Berkeley (UC Berkeley)

Jan 2019-May 2019

University of California Education Aboard Program (UCEAP) GPA: 4.00/4.00

PROFESSIONAL AND RESEARCH EXPERIENCE

National University of Singapore, School of Computing

Jun 2020-Jul 2021

Supervisor: Prof. Richard T.B. Ma

Position: Research Assistant

- Machine learning Apache Flink stream processing system.
- Analytically analyzed the Lyapunov stability of idealized network structures.

University of California, Berkeley (UC Berkeley)

Jan 2019-May 2019

Supervisor: Prof. Jyh-Yuan Chen

Position: Research Assistant

- Numerical study of how prechamber combustion helps with the IC engine efficiency

SELECTED PUBLICATIONS, AWARDS, AND EXPERIENCES

- Science and Technology Undergraduate Scholarship, Singapore, Jul 2015 – Jun 2020.
- Dean's list (obtained for all eligible semesters), National University of Singapore, 2017-2020.
- Chen, S.**, Ingersoll, A., P., and Li, C. (2023). Shallow water investigation on the genesis of Jupiter's polar cyclones. Manuscript submitted to JFM Rapids.
- Chen, S.**, Zeng, Z., Natraj, V., and Yung, Y. Machine learning-based aerosol characterization using OCO-2 O₂ A-band observations. (2022). Journal of Quantitative Spectroscopy and Radiative Transfer.
- Chen, S.**, Young, E., F., Young, A., L, et al. (2019). Global Climate Model Occultation Lightcurves Tested by August 2018 Ground-Based Stellar Occultation. Icarus.