EN-CHILEE

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SCHOOL Third-year undergraduate, University of Arizona, Tucson, AZ

EDUCATION

2023 – now BS in Geosciences (emphasis in Geophysics) & BS in Planetary Geocience

University of Arizona, Arizona

Minors: Mathematics & Oceanic and Atmospheric Sciences

Expected graduation: May 2026

GPA: 4.0/4.0

2022 – 2023 **BS in Geosciences** (transferred to the University of Arizona)

National Taiwan University, Taiwan

GPA: 4.3/4.3

RESEARCH EXPERIENCES & WORKSHOPS

2024 – now Arizona Polar Ice Laboratory, Undergraduate researcher

Department of Geosciences, University of Arizona, Arizona

Mentor: Dr. Christopher Harig

Project: Estimating Basin-Scale Ocean Mass Budgets with Satellite Gravity

- Developed MATLAB pipeline for processing GRACE satellite data and constructing Slepian functions over the oceans
- Provided mass change estimates in each ocean basin since 2003
- Quantified the spatial variance of the glacial isostatic adjustment and its impact on sea-level budget closures

2023 **Dynamics and Modelling Laboratory**, Undergraduate researcher

National Centre of Theoretical Sciences, National Taiwan University, Taiwan

Mentor: Dr. Hung-Chi Kuo

Project: Potential Vorticity Invertibility for Boundary Layer in Hadley Circulation

- Implemented algorithms for boundary layer dynamical adjustment
- Evaluated the performance of the Pangu AI model in forecasting typhoons compared to numerical weather prediction
- Developed suitable numerical methods for PDE invertibility and gained experience in operating AI models

2022 IRIS Seismology Skill Building Workshop, Participant

Incorporated Research Institutions for Seismology (Online)

Participated in the self-motivated workshop with a 99% average score

- Performed analysis using Shell scripts, Seismic Analysis Code (SAC), and ObsPy
- Studied behaviours of seismic events, earthquake positioning, and waveforms

SELECTED PRESENTATIONS

Sep 2024 Estimating Basin-Scale Ocean Mass Budgets with Satellite Gravity (talk)

University of New Mexico, New Mexico

University of New Mexico McNair Scholar Research Conference

Aug 2024 Estimating Basin-Scale Ocean Mass Budgets with Satellite Gravity (talk & poster)

University of Arizona, Arizona

Undergraduate Research Opportunities Consortium (UROC) Colloquium

SELECTED HONOURS & DISTINCTIONS

2023 - now Transfer Global Wildcat Award

University of Arizona, Arizona

Awarded 11,000 USD/year for outstanding academic performance

2023 – 2024 Dean's List with Distinction

University of Arizona, Arizona

Awarded for a 4.0 GPA

2022 - 2023 Fu Bell Scholarship

National Taiwan University, Taiwan

Awarded 200,000 NTD/year for outstanding academic performance

2022 - 2023 Presidental Award

National Taiwan University, Taiwan

Awarded for maintaining a top 5% GPA within the department

2021 International Earth Science Olympiad, Gold medalist

International Geoscience Education Organisation (Online)

Ranked second place internationally