

# EN-CHI (William) LEE Curriculum Vitae

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

## OBJECTIVE

I want to use numerical and observational approaches to study the Earth's and the solar system's physical aspects, including geophysics and large-scale oceanic or atmospheric dynamics. I aim to gain hands-on experience in creating models, analysing data, and doing fieldwork to understand these topics better.

## EDUCATION

2023 - now **BS in Geosciences** (Geophysics emphasis) and **BS in Planetary Geoscience**  
University of Arizona  
Minors: Mathematics and Oceanic/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

## SKILLS & ABILITIES

Programming Proficient in MATLAB, Python, LaTeX, and Seismic Analysis Code (SAC);  
Familiar with Shell scripts, Fortran and GrADS

Lab proficiency Able to operate fundamental physics and chemistry experimental equipment

Teamwork Strong in teamwork, delegation, and communication skills, developed during course-based group projects, international competitions and as a student researcher in two research projects, receiving highly positive feedback and awards

Work ethic Capable of completing complex tasks according to schedule while learning with peers and contributing to a productive work environment

## RELEVANT COURSEWORK

Mathematics Linear Algebra, Differential Equations, and Mathematical Analysis (in progress)

Geosciences & Geophysics Physical Geology, Sedimentology and Stratigraphy, Mineralogy, Petrology (in progress), Planetary Geoscience (in progress), Earth and Planetary Physics, and Applied Geophysics

Oceanography & Meteorology Marine Geology, Physical Oceanography, Climate and Ocean, Atmospheric Thermodynamics, and Dynamic Meteorology

Programming Program and Scientific Computing, Numerical Analysis, Numerical PDEs (audited)

## RESEARCH EXPERIENCES & WORKSHOPS

- 2023 **Undergraduate Summer Research Programme**, Undergraduate researcher  
National Centre for Theoretical Sciences, 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
- Gained experience working with Shell scripts, Seismic Analysis Code, and ObsPy
  - Learned advanced statistical behaviours of seismic events, earthquake positioning, and waveforms
- 2020 - 2022 **High school Independent Study**, student researcher  
Academia Sinica, Taiwan  
Mentor: Dr. Wen-Tzong Liang  
Project: Exploration of Low-Frequency Seismic Events
- Streamlined the *stormquake* detection process during typhoons and hurricanes
  - Developed a seismic event positioning algorithm using a single Rayleigh wave-packet
  - Acquired skills in math-based MATLAB programming, statistical methods

## HONOURS & DISTINCTIONS

- 2023 - 2024 **Transfer Global Wildcat Award**  
University of Arizona  
Awarded 11,000 USD/year for outstanding academic performance
- 2022 - 2023 **Fu Bell Scholarship**  
National Taiwan University, Taiwan  
Awarded 200,000 NTD/year for outstanding academic performance
- 2022 - 2023 **Presidential Award**  
National Taiwan University, Taiwan  
Awarded for maintaining a top 5% GPA within the department
- 2022 **Taiwan International Science Fair**, Finalist in the Earth Science category  
National Taiwan Science Education Centre, Taiwan  
Presented the poster *Exploration of Low-Frequency Seismic Events*
- 2021 **International Earth Science Olympiad**, Gold medalist  
International Geoscience Education Organisation (*Online*)  
Ranked second place internationally