

張文軒
CHANG Wen-Hsuan

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Professional in Astrophysics with extensive experience in academic research, astronomical observation, and science outreach. Proficient in GIS and its application in geophysical remote sensing exploration and outdoor sports.

PROFESSIONAL SUMMARY

- Research Expertise in Cosmology
- Astronomical Data Analysis
- Scholarly Article Writing
- Observatory Operation and Guiding Experience
- Astrophotography and Celestial Image Processing
- Science Outreach and Educational Initiatives
- Remote Sensing and UAV Operations
- GIS Applications and Geophysical Data Analysis
- Outdoor Activity Organization
- Mountain Safety Practices
- Mountaineering Education
- Cultural and Historical Field Investigation
- Web Development and Maintenance
- Leadership and Team Management
- Strategic Planning and Decision-Making
- Communication and Interpersonal Skills

SKILLS

- Expert in using Mathematica, Matlab, and Python to solve academic problems.
- Experienced with TheSky, MaxIm DL, Photoshop, and Illustrator.
- Advanced skills in Microsoft Office (Word, Excel, PowerPoint), LaTeX, and HTML/CSS programming.
- Excellent command of English, capable of using it as the primary language for meetings, workshops, reports, and daily work.
- Native speaker of Chinese Mandarin and Taiwanese.

EDUCATION

National Taiwan University

Ph.D. in Physics

Sep. 2011 - Jun. 2019

- Loop Quantum Cosmology
- Gravitational Waves
- Cosmic Microwave Background

National Tsing Hua University

B.Sc. in Physics

Sep. 2007 - Jun. 2011

EXPERIENCES

Universe Resources Technology Co. Ltd

Research & Development Manager

Feb. 2022 - Present

Lead Scientist

Oct. 2021 - Present

- Electromagnetic Wave Science
- Geophysical Exploration Theory and Instruments
- Geographic Information System and Geophysical Data Analysis
- Remote Sensing and Unmanned Aerial Vehicle Operation

Cosmic Wanderer Studio

Co-founder, Writer, and Photographer

Feb. 2019 - Dec. 2022

- Mountaineering Education (collaborated with Decathlon Taiwan)
- Mountain Trail Database Construction (collaborated with The Note Co. Ltd.)
- Long-distance Trail Promotion (collaborated with Taiwan Thousand Miles Trail Association)
- Forestry Regional Trail Travel (collaborated with Forestry Bureau)
- Hakka Township Tourism (collaborated with Hakka Affairs Council)
- Local Cultural Investigation (collaborated with Cultural Affairs Bureau of New Taipei City)

National Taiwan University

Research Assistant in Department of Physics

Sep. 2011 - Jul. 2019

- Loop Quantum Cosmology (research for doctoral degree)
- Array for Microwave Background Anisotropy (collaborated with ASIAA)
- Edison-based Maker Project (collaborated with Intel Corporation Taiwan)
- Light-field Camera Project (collaborated with Lite-On IT Corporation)

Teaching Assistant in Department of Physics

Sep. 2011 - Jul. 2016

- Applied Mathematics (undergraduate)
- Classical Mechanics (undergraduate)
- Electromagnetism (undergraduate)
- Statistical Physics (graduate)
- General Relativity (graduate)
- Cosmology (graduate)

STUDENT ORGANIZATIONS

National Taichung University of Education

Advisor of Astronomy Research Club

Sep. 2020 - Jun. 2022

National Taiwan University

Lecturer of Space Science Society

Sep. 2013 - Jun. 2018

National Tsing Hua University

President of Astronomy Club

Jul. 2009 - Jun. 2010

Instrument Manager of Astronomy Club

Jul. 2008 - Jun. 2009

Hui Wen High School

Instrument Manager of Astronomy Club

Sep. 2005 - Jun. 2006

VOLUNTEER WORK

American Institute in Taiwan

Preliminary Judge of NASA Hackathon Taiwan

Oct. 2019

Photographer of NASA Hackathon Taiwan

Apr. 2017

Proty's Team of Amateur Telescope Maker

Teaching Assistant

Sep. 2012 - Dec. 2016

Mount Phoenix Observatory

Guide and Operator

Jan. 2013 - Jan. 2016

- Wu Chien-Shiung Science Camps
- BBC Winter and Summer Astronomy Camps
- Prediscovery Observation of SN 2014J in M82

Cite Publishing Co. Ltd.

Invited Speaker of "Lonely Planet Taiwan"

Dec. 2014