Shenyao Jin

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Education

Zhejiang University Hangzhou, China
Bachelor of Geological Science *September 2019 ˜August 2023*

- QS ranking 42 in 2023
- **Overall** GPA: 3.86/4; **Major** GPA: 3.92/4
- Graduated from Chu Kochen Honors College

Colorado School of Mines, Reservoir Characterization Project (RCP) Golden, United States
Visiting Student *July 2022 ˜September 2022*

- Process the DAS data of Lake Hattie. Extract fish activities and perform velocity scanning based on the data.
- Advisor: Ge Jin.

Colorado School of Mines, Reservoir Characterization Project (RCP) Golden, United States
PhD Student of geophysics (2nd year) *August 2023 ˜Present*

- Advisor: Ge Jin.
- **Overall** GPA: 4.0/4.0
- Focus on the hydraulic fracturing result analysis and evalution based on DFOS system

Projects

Effective Elastic Thickness Analysis of North China Craton(NCC) | *MATLAB* April 2021 ˜May 2022

- Derived empirical formula for Effective Elastic Thickness from various physical property data, identifying key controlling factors for the North China Craton.
- Advisor: Yixian Xu

Imaging from Ambient Noise of DAS data of Lake Hattie | *python* July 2022 ˜September 2022

- Get underground structure of Lake Hattie, and analyze the activities of Lake Hattie.
- Advisor: Ge Jin

Clustering Joint Inversion of Subsurface Geological Targets | *C++* January 2023 ˜May 2023

- Implementation of Kernelized FCM(**F**uzzy **C**-**M**eans) Clustering algorithm and apply joint inversion to field data from Liangzhu, an ancient Chinese city.
- Advisor: Zhanjie Shi

Bakken N. Dakota Distributed Fiber Optic Sensing (Project Mariner) - ExxonMobil August 2023 ˜Present

- Using a extensive range of DFOS and engineering data from Bakken Mariner pilot project to characterize the conductive hydraulic fractures' behaviors during both the stimulation and production phases.
- Using fiber optic data to recover the permeability of the reservoir. Data processing finished, under theoretical validation.
- Advisor: Ge Jin

Skills

Programming: Python, MATLAB, C++, Linux Shell Script, LaTeX

Geophysical Skills: Seismic data/fiber optic data processing & analysis and interpretation, Seismic inversion, Machine learning in geophysics.

Public Presentation

Conductive Fracture Monitoring Using DSS: from Stimulation to Production August 2024

- It is presented in IMAGE'24.
- It explains the technique combining multiple datasets on explaining the behavior of hydraulic fractures during the whole operation including stimulation and production period.

Awards

Meritorious Winner in Mathematical Contest in Modeling(MCM) Feb 2022

- Awarded for the top 8% teams of undergraduates use mathematical modeling to solve real-world problems. Contributed as the programmer and data analysist of the team.

First Year Fellowship for graduate students March 2024

- Awarded for ability to integrate geophysics with computational techniques to advance sustainable resource management.