

# SHENYAO JIN

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*PhD student in geophysics focused on fiber-optic sensing and seismo-acoustic modeling*

## EDUCATION

<b>Colorado School of Mines, Reservoir Characterization Project (RCP)</b> <i>PhD Student in Geophysics (2nd Year)</i> <ul style="list-style-type: none"><li>– Advisor: Ge Jin</li><li>– GPA: 3.97/4.0</li><li>– Focus: Distributed fiber-optic sensing (DFOS) and pressure-strain modeling in hydraulic fracturing analysis.</li></ul>	Golden, CO, USA <i>Aug 2023 – Present</i>
<b>Colorado School of Mines, Reservoir Characterization Project (RCP)</b> <i>Visiting Student</i> <ul style="list-style-type: none"><li>– Processed DAS data from Lake Hattie to extract fish activity signals and perform velocity scanning.</li><li>– Advisor: Ge Jin</li></ul>	Golden, CO, USA <i>Jul 2022 – Sept 2022</i>
<b>Zhejiang University</b> <i>Bachelor of Geological Science</i> <ul style="list-style-type: none"><li>– <b>Overall GPA:</b> 3.86/4; <b>Major GPA:</b> 3.92/4</li></ul>	Hangzhou, China <i>Sept 2019 – Aug 2023</i>

## PROJECTS

<b>Distributed Fiber-Optic Sensing in the Bakken (Project Mariner, ExxonMobil)</b> <ul style="list-style-type: none"><li>– Characterized conductive hydraulic fractures using DFOS strain rate data and pressure gauges during both stimulation and production.</li><li>– Integrated low-frequency DAS interpretation with pressure gradient analysis and fracture network modeling.</li><li>– Advisor: Ge Jin</li></ul>	Aug 2023 – Present
<b>Clustering Joint Inversion of Subsurface Targets</b>   <i>C++</i> <ul style="list-style-type: none"><li>– Implemented kernelized Fuzzy C-Means algorithm for clustering joint inversion of geophysical datasets from Liangzhu archaeological site.</li><li>– Advisor: Zhanjie Shi</li></ul>	Jan 2023 – May 2023
<b>Ambient Noise Imaging of DAS Data from Lake Hattie</b>   <i>Python</i> <ul style="list-style-type: none"><li>– Used ambient DAS data to obtain subsurface imaging of Lake Hattie and assess environmental dynamics.</li><li>– Advisor: Ge Jin</li></ul>	Jul 2022 – Sept 2022

## SKILLS

<b>Programming:</b> Python, MATLAB, C/C++, L <sup>A</sup> T <sub>E</sub> X, Bash
<b>Geophysical Methods:</b> DFOS/DAS data processing and modeling, strain-pressure analysis, hydraulic fracture interpretation, signal denoising
<b>Technical Competencies:</b> Time-series signal processing, exploratory data analysis, seismic inversion, numerical modeling, Linux workflows

## PUBLIC PRESENTATIONS

<b>Conductive Fracture Monitoring Using DAS: From Stimulation to Production</b> <ul style="list-style-type: none"><li>– Presented at IMAGE'24. Demonstrated the use of LF-DAS and pressure data to track fracture connectivity and annular strain evolution in horizontal wells.</li></ul>	Aug 2024
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## MANUSCRIPTS IN PREPARATION

<b>Low-Frequency DAS for Cement Quality Monitoring in Horizontal Wells</b> <ul style="list-style-type: none"><li>– First-author manuscript to be submitted to <i>SPE Journal</i>. Proposes a method for monitoring cement integrity using low-frequency DAS and pressure-strain coupling. Validated through history matching and field data.</li></ul>	In preparation, April 2025
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## AWARDS

<b>Meritorious Winner, Mathematical Contest in Modeling (MCM)</b> <ul style="list-style-type: none"><li>– Top 8% of international undergraduate teams. Contributed as lead programmer and data analyst.</li></ul>	Feb 2022
<b>First-Year Fellowship for Graduate Students</b> <ul style="list-style-type: none"><li>– Recognized for integrating computational geophysics to advance sustainable energy systems.</li></ul>	Mar 2024
<b>George R. Pickett Memorial Scholarship</b> <ul style="list-style-type: none"><li>– Awarded for excellence in borehole geophysics with applied focus on oil and gas workflows.</li></ul>	Oct 2024