Yiyu Ni

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EDUCATION

Jun. 2021 –
Ph.D. Program (Earth and Space Sciences), University of Washington   Seattle, WA
Advisor: Marine Denolle

Sept. 2016 – Dec. 2020
B.Sc. in Geophysics (Geo-exploration Science and Technology), Jilin University   Changchun, China

RESEARCH INTERESTS

High-performance Seismology, Distributed Acoustic Sensing, Machine Learning, Cloud Computing

RESEARCH EXPERIENCE

Dec. 2020 – May 2021
Nanjing University   Nanjing, China
Research Assistant | Advisor: Youyi Ruan

Jul. – Sept. 2019
Harvard University   Cambridge, MA
Student Intern | Advisor: Miaki Ishii

INVITED TALK

- University of Washington, Data Science Seminar, Apr. 2023

PUBLICATION

- **Ni Y.**, Hutko A.R., Skene F., Denolle M.A., Malone S.D., Bodin P., Hartog J.R., Wright A.K., Curated Pacific Northwest AI-ready Seismic Dataset, *Seismica*, 2023
- **Ni Y.**, Denolle M.A., Fatland R., Alterman N., Lipovsky B.P., Knuth F., An Object Storage for Distributed Acoustic Sensing, *Seismological Research Letters, **in prep***

Co-author

- Yuan C., **Ni Y.**, Lin Y., Denolle M.A., Ensemble Learning for Earthquake Detection and Phase Picking, *IEEE Geoscience and Remote Sensing Letters*, ***in prep***
- Krauss Z., **Ni Y.**, Denolle M.A., Henderson S., Seismology in the cloud for template matching and machine-learning earthquake detection, *Seismica*, ***in prep***

CONFERENCE PRESENTATIONS

Talks

- **Ni Y.**, Hutko A., Hartog R., Malone S., Denolle M.A., A New Machine Learning Earthquake Catalog for the Pacific Northwest, *AGU Fall Meeting 2022,* Chicago, IL

- **Ni Y.** and Li J., Adjoint seismic waveform inversion based on SPECFEM, *Asia-Pacific Geophysics Student Conference 2020,* Hefei, China

Posters
- **Ni Y.**, Hutko A., Skene F., Hartog R., Denolle M.A., Malone S., Wright A., A Curated Pacific Northwest Seismic Dataset, *SSA Annual Meeting 2023*, San Juan, Puerto Rico
- **Ni Y.**, Denolle M.A., Alterman N., Fatland R., Lipovsky B., Knuth F., An Open-source Object Storage for Distributed Acoustic Sensing, *SAGE-GAGE Community Workshop 2023,* Pasadena, CA
- **Ni Y.**, Pan S., Kutz J.N., Lipovsky B., Denolle M.A., Neural Implicit Compact Representation Compress Distributed Acoustic Sensing Data, *AGU Fall Meeting 2022*, Chicago, IL
- **Ni Y.**, Pan S., Kutz J.N., Lipovsky B., Denolle M.A., Implicit Neural Compact Representation to Compress Distributed Acoustic Sensing Data, *SCEC Annual Meeting 2022,* Palm Spring, CA
- **Ni Y.**, Pan S., Kutz J.N., Lipovsky B., Denolle M.A., Implicit Neural Compact Representation of the OOI DAS Data, *Northeast Pacific OOI Workshop,* Portland, OR
- **Ni Y.**, Denolle M.A., Data-Discovery the Earth GeoDynamical Systems in the Pacific Northwest, *SSA Annual Meeting 2022,* Bellevue, WA
- **Ni Y.**, Denolle M.A., Data-Discovery the Earth GeoDynamical Systems in the Pacific Northwest, *UW AI Institute in Dynamic Systems Launch Event,* Seattle, WA
- **Ni Y.**, Denolle M.A., Swinski J.P., Cloud-Optimized ASDF-H5 for Seismology, *AGU Fall Meeting 2021,* New Orleans, LA

Co-author Posters
- Denolle M.A., Wang Y., Tape C., **Ni Y.**, Waldhauser F., Bozdag E., A Cloud Ecosystem for Data and Software Developed by SCOPED, *Annual Meeting 2023,* San Juan, Puerto Rico
- Krauss Z., **Ni Y.**, Henderson S., Denolle M.A., Wang I., Constructing Cloud Resources for the Individual Researcher from the Ground Up: An Example of Earthquake Detection in the Cloud, *SSA Annual Meeting 2023,* San Juan, Puerto Rico
- Yuan C., **Ni Y.**, Lin Y., Denolle M. A., Ensemble Learning for Earthquake Detection and Phase Picking: Methodology and Application, *SSA Annual Meeting 2023,* San Juan, Puerto Rico
- Skene F., Smoczyk N., Hutko A., **Ni Y.**, Denolle M.A., Seismically Derived Flow Velocities of Surface Mass Wasting Events in the Cascades 2001-2021, *AGU Fall Meeting 2022,* Chicago, IL
- Smoczyk N., Hutko A., **Ni Y.**, Skene F., Denolle M.A., Expanding and Fingerprinting a Repeating Earthquake Catalog on the Cascades Volcanoes, *AGU Fall Meeting 2022,* Chicago, IL
- Lipovsky B., Manos J.M., **Ni Y.**, Denolle M.A., Bodin P., Winebrenner D.P., Hollberg L., Zumberge M.A., Distributed Acoustic Sensing in the Puget Sound and Puget Lowlands, Washington, USA, *AGU Fall Meeting 2022,* Chicago, IL
- Denolle M.A., Tape C., Bozdag E., Waldhauser F., Wang Y., **Ni Y.**, Orsvuran R., Ciardelli C., The beginnings of SCOPED: Seismic COmputational Platform for Empowering Discovery, *AGU Fall Meeting 2021,* New Orleans, LA

PROFESSIONAL SERVICE
- Duty Seismologist at Pacific Northwest Seismic Network, 2022 –

TEACHING EXPERIENCE
- SCEC High Performance Seismology CyberTraining 2023, Teaching Assistant and Tutorial Lead, May 2023

FIELD EXPERIENCE

- Cascadia 2021: nodal seismometer (ZLand) deployment and retrieval, 2022, Tillamook, OR

AWARDS AND HONORS

- Robert and Mary Alice Crosson Endowed Graduate Student Support Fund, 2022
- Best Oral Presentation, APGSC & SEG, 2021
- Excellent Undergraduate at Jilin University, 2020