Xu Si

+86 - 15931734755 | Email: xusi@mail.ustc.edu.cn
Website: https://sixu0.github.io/

RESEARCH EXPERIENCE

Deep Learning for Earthquake Location **Sep 2020 – Present**

- Use different types of graph neural network to locate the position of earthquake or microseismic

Deep Learning for Ground Roll Attenuation **Jan 2019 – Mar 2020**

- Synthesized common shot gathers with ground roll
- Used different types of neural network (U-net, pix2pix, Cyclegan) to attenuate ground roll in seismic data
- Analyzed the different denoising methods' influence to seismic data

Deep Learning for Seismic Data Reconstruction **May 2019 – Jun 2019**

- Designed a Conditional Generative Adversarial Network for seismic data reconstruction

Deep Learning for Random Noise Attenuation **Dec 2017 – Dec 2018**

- Synthesized shot gathers with different types of random noise
- Used DnCNN to denoise random noise in seismic data

INTERNSHIP EXPERIENCE

Summer Internship, Anhui Earthquake Agency **Jul 2020 – Aug 2020**

- Designed a CNN model for seismic event detection and classification
- Deployed the CNN model to the real-time monitoring system

Data Processing Assistant (Internship), Bureau of Geophysical Prospecting **Jul 2017 – Aug 2017**

- Analyzed the different denoising methods' influence to seismic data
- Finished the processing of seismic data and got the migration profile (2D Seismic Data)

EDUCATION

University of Science and Technology of China, Hefei, China **Sep 2020 – Present**

- Ph.D. in Geophysics

China University of Geoscience, Beijing, China **Sep 2017 – Jul 2020**

- M.S. in Applied Geophysics, GPA: 86.5/100 (Top 10%)

China University of Geoscience, Wuhan, China **Sep 2013 – Jul 2017**

- B.E. in Applied Geophysics, GPA: 82.5/100 (Top 30%)

KEY SKILLS

Software Knowledge:

- Programme: Python, Matlab and C
- Machine learning frame: Keras, Tensorflow and Pytorch
- Seismic data processing software: Geoeast

PUBLICATIONS

- Yuan, Y., **X. Si**, and Y. Zheng, 2020, Ground roll attenuation using generative adversarial network. **Geophysics**, 85(4): WA255-WA267.
- **Si, X.**, Y. Yuan, T. Si, and S. Gao, 2019, Attenuation of random noise using denoising convolutional neural networks. **Interpretation**, 7(3): SE269-SE280.
- **Si, X.**, Y. Yuan, F. Ping, Y. Zheng, and L. Feng, 2019, Ground roll attenuation based on conditional and cycle generative adversarial networks. SEG Workshop on Mathematical Geophysics: Traditional vs Learning. (**Best student poster**)

- Li. F., **X. Si**, L. Feng, and J. Gao, 2019, 2-D Seismic Data Reconstruction with Conditional Generative Adversarial Networks. SEG Workshop on Mathematical Geophysics: Traditional vs Learning.
- **Si, X.**, Y. Yuan, 2018, 2-D Seismic Data Reconstruction with Conditional Generative Adversarial Networks. 88th Ann. Mtg., Soc. Expl. Geophys., Expand Abstracts, 1986-1990.

AWARDS AND HONORS

- National Scholarship for postgraduate in China, 2019.12.
- SEG 3rd International Workshop on Mathematical Geophysics: Best student poster, 2019.11.
- Merit postgraduate in CUGB, 2019.11.
- Third prize in National Exploration Geophysics Competition for college students, 2018.08.
- First prize in Academic Scholarship, 2017-2019。