

# Mijian Xu, Ph.D Candidate

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🌐 <http://xumijian.me/>

🔄 <http://github.com/xumi1993/>



## Employment History

- 2017 – 2018 📌 **Software Engineer**, Nanjing Site, CleNET Technologies.
- 2016 – 2017 📌 **Research Assistant**, School of Earth Science and Engineering, Nanjing University.

## Education

- 2018 – Present 📌 **Ph.D Candidate**, **Nanjing University** in Geology.
- 2013 – 2016 📌 **M.Sc., Nanjing University** in Geophysics.  
Thesis title: *Mantle Transition Zone Structures Beneath SE Tibet Revealed by Receiver Functions.*

## Research Interests

- 📌 **Seismotectonics**
- 📌 **Structures of Upper Mantle**
- 📌 **Geodynamics of Tibetan Plateau**
- 📌 **Wavefield Simulation in Complex Media**

## Research Publications

### Journal Articles

- 1 **Xu, Mijian**, Zhouchuan Huang, Liangshu Wang, Mingjie Xu, Yueqiao Zhang, Ning Mi, Dayong Yu, and Xiaohui Yuan. “Sharp Lateral Moho Variations Across the SE Tibetan Margin and Their Implications for Plateau Growth”. *Journal of Geophysical Research: Solid Earth* 125.5. ISSN: 2169-9313, 2169-9356. DOI: 10.1029/2019JB018117 (May 2020). Print.
- 2 Tian, Muyu, Zhouchuan Huang, Liangshu Wang, Mingjie Xu, Ning Mi, Dayong Yu, Haibo Wang, Tao Gou, **Mijian Xu**, Cunri Han, Shijie Hao, and Yajing Bi. “Tectonic evolution of the eastern margin of the Tibetan plateau: Insight from crustal structures using P wave receiver functions”. *Journal of Asian Earth Sciences* 191. ISSN: 13679120. DOI: 10.1016/j.jseaes.2020.104230 (Apr. 2020): 104230. Print.
- 3 **Xu, Mijian**, Zhouchuan Huang, Liangshu Wang, Mingjie Xu, Ning Mi, and Dayong Yu. “Lateral variation of the mantle transition zone beneath the Tibetan Plateau: Insight into thermal processes during Indian–Asian collision”. *Physics of the Earth and Planetary Interiors* 301. ISSN: 00319201. DOI: 10.1016/j.pepi.2020.106452 (Apr. 2020): 106452. Print.
- 4 Han, Cunrui, **Mijian Xu**, Zhouchuan Huang, Liangshu Wang, Mingjie Xu, Ning Mi, Dayong Yu, Tao Gou, Haibo Wang, Shijie Hao, Muyu Tian, and Yajing Bi. “Layered crustal anisotropy and deformation in the SE Tibetan plateau revealed by Markov-Chain-Monte-Carlo inversion of receiver functions”. *Physics of the Earth and Planetary Interiors*. ISSN: 0031-9201. DOI: <https://doi.org/10.1016/j.pepi.2020.106522> (2020): 106522. Print.
- 5 **Xu, Mijian**, Hui Huang, Zhouchuan Huang, Pan Wang, Liangshu Wang, Mingjie Xu, Ning Mi, Hua Li, Dayong Yu, and Xiaohui Yuan. “Insight into the subducted Indian slab and origin of the Tengchong

volcano in SE Tibet from receiver function analysis". *Earth and Planetary Science Letters*. ISSN: 0012821X. [DOI: 10.1016/j.epsl.2017.11.048](https://doi.org/10.1016/j.epsl.2017.11.048) (2018). Print.

6 **Xu, Mijian**, Hui Huang, Zhouchuan Huang, and Liangshu Wang. "SplitRFLab: A MATLAB GUI toolbox for receiver function analysis based on SplitLab". *Earthquake Science*. ISSN: 1674-4519. [DOI: 10.1007/s11589-016-0141-8](https://doi.org/10.1007/s11589-016-0141-8) (2016). Print.

7 Huang, Zhouchuan, Pan Wang, Mingjie Xu, Liangshu Wang, Zhifeng Ding, Yan Wu, **Mijian Xu**, Ning Mi, Dayong Yu, and Hua Li. "Mantle structure and dynamics beneath SE Tibet revealed by new seismic images". *Earth and Planetary Science Letters* 411. ISSN: 0012-821X. [DOI: 10.1016/j.epsl.2014.11.040](https://doi.org/10.1016/j.epsl.2014.11.040) (2015): 100–111. Print.

## Skills

Languages	📖 Mandarin Chinese, English.
Coding	📖 Python, C, Perl, Fortran, Matlab, PyTorch, $\LaTeX$ , ...
Seismological Software	📖 SAC, Obspy, GMT, Specfem2D/3D, Fk, CAP, ...
Instruments	📖 Reftek-130/130s data logger and Guralp CMG-40T/3T sensor, Zland 3C nodes, ...
Misc.	📖 RedHat operation and maintenance, Continuous Integration, ...

## Miscellaneous Experience

### Open Source Software

- 2016 📖 **Seispy** – A Python module for automatic calculations of receiver function and its derivative process.  
<https://seispy.xumijian.me>
- 2015 📖 **BQMail** – A Python module to batch send seismic data requests to IRIS DMC.  
<https://git.nju.edu.cn/xumi1993/bqmail2.0>
- 2014 📖 **SplitRFLab** – A Matlab toolbox for computing receiver functions and shear wave splitting.  
<https://github.com/xumi1993/SplitRFLab>

### Certification

- 2015 📖 **Red Hat Certified Engineer**

### Field Experience

- 2019 📖 **Geological survey in Huizhou**, Install 500 short period nodes and 25 broadband seismic stations across Lianhuashan Fault zone.
- 2018 – 2020 📖 **ChinArray III**, Install and maintain broadband seismic stations in Liaodong Peninsula.
- 2013 – 2016 📖 **ChinArray II**, Install and maintain broadband seismic stations in Ordos Basin.

### Peer Review

- 📖 Seismological Research Letters (1).