

Nasrin Tavakolizadeh

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Computer Skills

Python

MATLAB

Adobe Illustrator

MS-Word

MS-Powerpoint

MS-Excel

LaTeX

Linux

Windows

2017 - 2020M.Sc. Institute of Geophysics, University of Tehran, Iran

Seismology

Applied Geology

2009-2013 B.Sc. Kharazmi University, Tehran, Iran

**HELTS** 

2022 Overall: 7.5

L:8.5/R:8.0/W:6.5/S:7.5

2023 To be submitted to: Computers and Geosciences, Tavakolizadeh, N., Mohammadigheymasi, H., Visini, F., Bruno P., Corresponding author: Tavakolizadeh, N.,

FiSH-SCC: An open-source MATLAB package for faults seismic activity rate calcu-

lation.

2023 Under review: IEEE transactions on geoscience and remote sensing, Mohammadigheymasi, H., Shi, P., Tavakolizadeh, N., Zhuowei, X., Mousavi, S. M., Ma-

tias, L., Mousavirad, S., J., Pourvahab, M., Fernandes, R., Corresponding author: Mohammadigheymasi, Hamzeh, IPIML: A deep-scan earthquake detection and location workflow Integrating Pair-Input deep learning model and Migration Location

method.

2023 Mohammadigheymasi, H., Tavakolizadeh, N., Matias, L., Mousavi, M., Silveria, G., Custodio, S., Application of deep learning method for seismic-

ity analysis in southern Ghana. Geosystems and Geoenvironment (2023).

https://doi.org/10.1016/j.geogeo.2022.100152

2023 Mohammadigheymasi, H., Tavakolizadeh, N., Matias, L., Mousavi, M., Moradichaloshtori, Y., Mousavirad, SJ., Fernandes, R., A data set of earthquake

bulletin and seismic waveforms for Ghana obtained by deep learning. Data in Brief

(2023). https://doi.org/10.1016/j.dib.2023.108969.

2022 Mendeley Data, Mohammadigheymasi, H., Tavakolizadeh, N., Matias, L., Mousavi, M., Moradichaloshtori, Y., Mousavirad, S. J., Fernandes, R., Seismicity dataset of

Ghana obtained by Deep Learning., http://doi.org/10.17632/zz9txhw89w.1.

2021 Tavakolizadeh, N., Bagheri, M., Multi-attribute Selection for Salt Dome Detection

Based on SVM and MLP Machine Learning Techniques. Natural Resources Research

(2021), https://doi.org/10.1007/s11053-021-09973-8.

Presentations

International Conferences

2022 Tavakolizadeh, N., Mohammadigheymasi, H., Matias, L., Silveira, G., Fernandes, R., and Dolatabadi, N., To what extent do slip rates contribute to the seismic activity

of faults? EGU General Assembly, https://doi.org/10.5194/egusphere-egu22-12893.

2022 Mohammadigheymasi, H., Tavakolizadeh, N., Mousavi, S. M., Silveira, G., and Fer-

nandes, R., Seismicity analysis in southern Ghana- I: Detecting local earthquakes by

Deep Learning, EGU General Assembly, https://doi.org/10.5194/egusphere-egu22-

5860.

2019

2022 Custódio, S., Mohammadigheymasi, H., Tavakolizadeh, N., Matias, L., and Silveira, G., Seismicity analysis of Southern Ghana II: Updated

crustal velocity model and hypocentral parameters, EGU General Assembly,

https://doi.org/10.5194/egusphere-egu22-5570.

2021 Dolatabadi, N., Tavakolizadeh, N., Mohammadigheymasi, H., and Valentini, A., A combined fault- and catalog-based hazard assessment for Central Zagros, Iran.,

EGU General Assembly. https://doi.org/10.5194/egusphere-egu21-14411.

Tavakolizadeh, N., and Sadidkhouy, A., Probabilistic Seismic hazard assessment and focal mechanism mapping of Minab fault zone and the Strait of Hormoz, 3rd Trigger

International Conference.

# nasrin Tavakolizadeh nasrintavakolizadeh@gmail.com Softwares QGIS ArcGIS OpenQuake GitHub ObsPy Surfer VELEST SEISAN Zmap Crisis OpendTect

Petrel

RES2DINV, RES3DINV

National Conferences

2020 Tavakolizadeh, N., and Bagheri, M., Presenting selected seismic attributes in

salt dome delineation, 19th Geophysics Conference of Iran (GSI).

2020 Tavakolizadeh, N., and Bagheri, M., Application of a feature-based multi-layer

perceptron neural network in salt detection, 19th GSI.

2016 Tavakolizadeh, N., Rahimi, B., Ghaemi. F., Review of asperities and distribution

of stress within the epicenter of the 2014 earthquake with 6.2 MN in NW Zagros Mountains, The 34th national and 2nd International Geosciences Congress.

2016 Tavakolizadeh, N., Rahimi, B., Ghaemi. F., The study of seismotectonic and

asperities in Zagros through the b-value parameter, The 34th national and 2nd

International Geosciences Congress.

### Research Interests

Numerical modeling and inversion, Developing and applying machine learning and deep learning methods, Passive seismic methods, Seismic Data Processing and interpretation, Fault modeling, PSHA, and Geophysical instruments.

# Teaching experiences

2019 Teaching Assistance, Structural geology, Prerequisite course for Master of Earth-

quake Seismology.

Institution Geophysics Institute, Tehran University

Tasks Teaching structural geology lab, grading and preparing exercises.

### (Awards and Honors

2017-2020 Awarded full scholarship (tuition waiver) to study at the University of Tehran for

graduate degree (Ranked 12th among participants in the Nationwide Universities Entrance Exam in the field of Geophysics and Meteorology for MSc degree,

Summer 2017).

2013-2016 Awarded full scholarship (tuition waiver) to study at the Ferdowsi University of

Mashhad for graduate degree.

2009-2013 Awarded full scholarship (tuition waiver) to study at the Kharazmi University

for undergraduate degree.

## Academic Service

2020 Member of coordinator team of 19th Geophysics Conference of Iran.

### Reterences

Dr. Hamzeh Mohammadigheymasi

DOM LUIZ institute, University of Beira Interior, Portugal, hamzeh@ubi.pt

Dr. Seyed Mostafa Mousavi

Stanford university, mmousavi@stanford.edu

Dr. Majid Bagheri

Institute of Geophysics, University of Tehran, majidbagheri@ut.ac.ir