OMID GHOZATLOU

RESEARCH INTEREST

- Image Processing
- Deep Learning
- Computer Vision
- Artificial Intelligence
- Machine Learning
- Remote Sensing
- Neuroscience

Email: omid.ghozatlou@upb.ro

[redacted]

Date of birth: [redacted]

Sex: Male

ResearchGate

LinkedIn

EDUCATION

Current Position

2020 – expected date: December 2023 *BUCHAREST, ROMANIA*

Faculty of Electronics, Telecommunications and Information Technology, POLITEHNICA University of Bucharest

Research Assistant and PhD student, University POLITEHNICA of Bucharest (UPB), Research Center for Spatial Information (CEOSpaceTech), Bucharest, Romania. (Early Stage Researcher in the frame of EU Marie Skłodowska-Curie innovative training network project MENELAOS-NT)

Thesis Title: "Adversarial Learning for Earth Observation multispectral Images"
Supervisor: Professor Mihai Datcu [Link] | POLITEHNICA University of Bucharest | Bucharest | Romania.

Master of Science

2016 – 2019 *TEHRAN, IRAN*

Biomedical Engineering, School of Electrical & Computer Engineering, University of Tehran
Thesis Title: "Patient specific dental arch estimation using SIFT algorithm in Multislice CT images"
Supervisor: Professor Reza Aghaeizadeh Zoroofi [Link] | University of Tehran | Tehran | Iran.

GPA: 77.6%

Bachelor of Science

2010 – 2015 *TEHRAN, IRAN*

Power Systems, School of Electrical & Computer Engineering, Shahid Rajaee University
Thesis Title: "Effect of FACTs devices on enhancement of Voltage Stability in a power system"
Supervisor: Assistant Professor Shahram Khodadadi [Link] | Shahid Rajaee University | Tehran | Iran.

GPA: 71%

EXPERIENCES

✓ Doctoral Researcher

In University POLITEHNICA of Bucharest (UPB), Research Center for Spatial Information (CEOSpaceTech), (Early Stage Researcher in the frame of EU Marie Skłodowska-Curie innovative training network project MENELAOS-NT), Bucharest, Romania, Sep. 2020 – Present

✓ Visiting Researcher

In the Center for Sensorsystems (ZESS) at the University Siegen, (Project: **Remote Sensing Image Retrieval Using Enhanced Deep SVDD**), under supervision of Dr. Miguel Heredia Conde, Siegen, Germany, October 2021 – November 2022

✓ Research Assistant

In the Image Engineering Lab at the Faculty of Electrical and computer Engineering, (full time contribution in the project: **Dental landmark detection on CT images by CNNs**), Tehran, Iran, May 2019 – March 2020

✓ Teaching Assistant

In **Machine Vision** course under supervision of Dr. Hosseini, University of Tehran, Tehran, Iran, Oct. 2019 – March 2020

✓ Electrical Engineer

In Mohammadian Oil & Gas Development & Engineering Company, (full time work as an **Electrical Engineer** and **German translator** for establishment and equipment the Gas Pipeline factory), Markazi Province, Iran, Feb 2016 - Nov 2016

COMPUTER SKILLS

- Machine Learning frameworks: OpenCV, Pytorch, Keras (Professional)
- Programming Language: Python (Professional), C, C++ (Intermediate)
- Engineering Software: MATLAB (Professional), 3D Slicer, Itk-SNAP, SNAP, QGIS, Arduino

ACCOMPLISHED PROJECTS

- Query By Example in Remote Sensing Image Using Enhanced Deep SVDD, 2023
- Active Learning using deep Support Vector Data Description (SVDD) and tkinter GUI, 2022
- Fast and Robust Probabilistic Polar Image Classification (in MATLAB), 2022
- Hybrid GAN and Spectral Angular Distance for Cloud Removal, 2021
- Patient-specific dental arch estimation via LASSO regression analysis in CBCT images, 2020
- Detection of restorations and treatments on dental x-rays in TensorFlow, 2019
- Symmetry detection using SIFT algorithm on CT images, 2018
- EEG feature extraction using wavelet transform, 2017
- R-R interval detection in ECG signals using an innovative algorithm, 2016

Find the implemented codes in MATLAB and Python by click the link: https://github.com/omid-ghozatlou

LANGUAGES PROFICIENCY

English: **Fluent** | German: **Goethe-Zertifikat B2**
Turkish: **Fluent (spoken)** | Persian: **Native**

PUBLICATION

- **A Review and Perspective of Active Learning for Remote Sensing Image Analysis;** O Ghozatlou, MH Conde, M Datcu; *IEEE Geoscience and Remote Sensing Magazine (under revision)*
- **GAN-Based Ocean Pattern SAR Image Augmentation**; O Ghozatlou, M Datcu, B Chapron; *IEEE 43rd International Geoscience and Remote Sensing Symposium IGARSS, 2023*
- **An Efficient Compressive Learning Method on Earth Observation Data;** M Keymasi, O Ghozatlou, MH Conde, M Datcu; *IEEE 43rd International Geoscience and Remote Sensing Symposium IGARSS, 2023*
- **Towards Complex-Valued Deep Architectures with Data Model Preservation for Sea Surface Current Estimation from SAR Data;** MA Iqbal, RM Asiyabi, O Ghozatlou, A Anghel, M Datcu; 20th International Conference on Content-based Multimedia Indexing (presented)
- **Classification of Danube Delta boundaries by using machine learning algorithms on co-registered Sentinel-1 and Sentinel-2 data**; M Keymasi, O Ghozatlou, A Anghel, M Datcu; *Advanced Topics in Optoelectronics, Microelectronics, and Nanotechnologies 2023*
- **Query by Example in Remote Sensing Image Archive Using Enhanced Deep Support Vector Data Description**; O Ghozatlou, MH Conde, M Datcu; *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing 2022*
- **Comparative Studies on similarity Distances for Remote Sensing Image Classification**; O Ghozatlou, M Datcu; *IEEE 5th International Conference on Image Processing Applications and Systems (IPAS) 2022*
- **Wavelet-Guided Deep Neural Network For Robust One-Class Classification**; O Ghozatlou, MH Conde, M Datcu; *12th Workshop on Hyperspectral Imaging and Signal Processing: Evolution in Remote Sensing (WHISPERS) 2022*
- **Hybrid GAN and spectral angular distance for cloud removal**; O Ghozatlou, M Datcu; *IEEE 41st International Geoscience and Remote Sensing Symposium IGARSS, 2021*
- **Patient-specific dental arch estimation via LASSO regression analysis in CBCT images**; O Ghozatlou, R A Zoroofi; *26th National and 4th International Iranian Conference on Biomedical Engineering 2019*
- **Classification of maxillofacial deformities using SIFT algorithm in MSCT images**; O Ghozatlou, R A Zoroofi, D Shafaie; *Conference on Innovations in Computer Science and Electrical Engineering 2019*

HONORS & AWARDS

- Receive a **Marie Skłodowska-Curie** Innovative Training Network (ITN) Fellowship in **MENELAOS** Project as an early stage researcher 2020 Bucharest, Romania
- Ranked **131th** among more than **48,800** participants in National University Graduate Entrance Exam in Electrical Engineering for M.Sc. degree 2016 Tehran, Iran

More documents and further information: http://omidghozatlou.webstarts.com/links.html