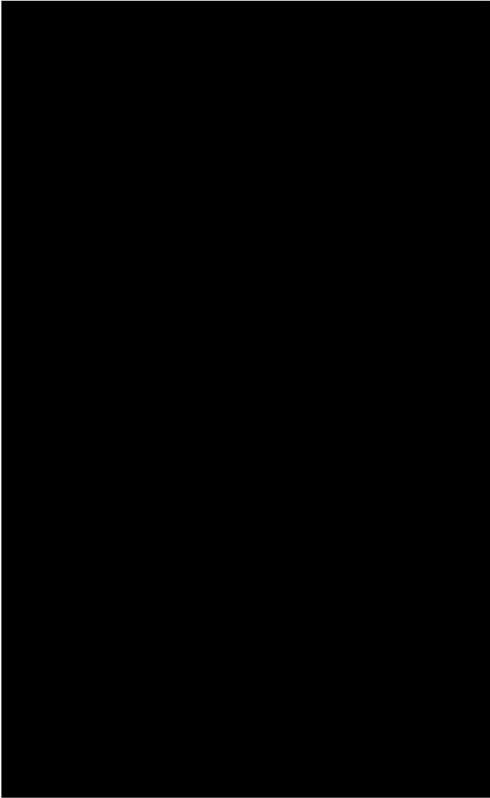
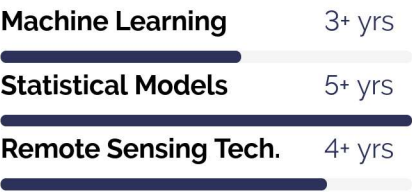


CONTACT

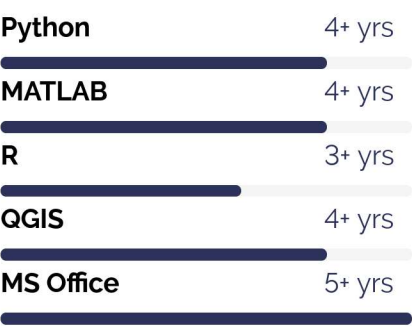


SKILLS

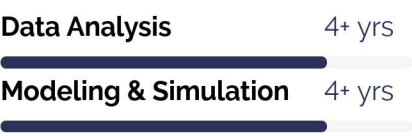
TECHNICAL SKILLS



SOFTWARES & PL



ANALYTICAL SKILLS



MEHRAN SHOVKATI

Research Scholar - RS and Machine Learning

SUMMARY

Motivated and detail-oriented PhD student specialising in machine learning for remote sensing and image analysis. Building on a strong foundation in remote sensing technology and statistical modelling, I am committed to advancing innovative methods for tackling environmental and geographical challenges, with a particular focus on addressing issues related to climate change.

EDUCATION

PhD - STIET - Machine Learning for Remote Sensing
DITEN department - University of Genoa (Italy)

Working on CCI+ (ESA) project for satellite image classification using Machine Learning and Deep Learning techniques.

2024 - ongoing

MSc.- Engineering for Natural Risk Management
DITEN department - University of Genoa (Italy)

Passed with GPA 110/110 e lode: Thesis: Potential Hazards of AEMWE Electrode's Material (Ni and Co metals exposure assessment).

2021 - 2024

BSc. - Occupational Health and Safety Engineering
Shahid Beheshti University of Medical Sciences - Tehran (Iran)

Passed with GPA 3.24/4: Project:OH&S Risks of PAK Dairy Co.

2009 - 2013

PROJECTS

Siamese MLP model for data fusion and image classification
Tool: Python

SAR and Optical data fusion using Siamese MLP model to classify satellite images in various ecoregions (Africa, Siberia, and Amazonia).

2025

PGM models for spatial regularization
Tool: Python

Image segmentation using MRF and CRF models.

2024-2025

Monte Carlo simulation for human health risk of metal particles
Tool: Python

The Monte Carlo simulation for occupational exposure to metal nanoparticles. Life cycle assessment method for evaluating the exposure and emission of metal particles in water electrolysis technology.

2024

ACHIEVEMENTS/ CERTIFICATIONS

IELTS Academic

7.5 out of 9 Band

A certificate issued by the International Development Program (IDP), Australia, to prove English language proficiency for non-native **English** language speakers.

Python

100%

Two certificates issued by Udemy and Coursera (University of Michigan) specialisation to prove understanding of **Python** programming.

MATLAB

100%

A certificate issued by Coursera (Vanderbilt University) for the complete course in **MATLAB** programming.

IBM AI engineering

100%

A certificate issued by Coursera by IBM for the complete course in **AI Engineering**.

IBM Machine Learning

100%

A certificate issued by Coursera by IBM for the complete course in **Machine Learning**.

ML Specialization

100%

A certificate issued by Coursera (Stanford University) for the complete course in **Machine Learning and Deep Learning**.

Human health risk evaluation for H2SO4 plant

Tool: Python

2023

Gaussian Plume model for hazard quotient and lifetime cancer risks of the public population near the plant. Both environmental and occupational exposure evaluation.

Cellular Automata Wildfire Risk Evaluation

Tool: Python

2023

Employment of various scenarios of the Cellular Automata method on the Ligurian region forest to evaluate the sensitivity analysis of various parameters on the probabilistic fire spread speed.

COURSEWORKS

Environmental projects with the aim of chemical hazards evaluation in natural and technological settings.

2021-2024

Tool: Python-MATLAB-Lab. Experiment

Employment simulation applications with real data to observe the quantitative risks.

Occupational health and safety projects with the aim of toxicology, occupational epidemiology, and chemical and physical hazards evaluation.

2009-2021

Tool: Lab. Analysis-Active Monitoring

Various projects in industries and public environments for evaluating occupational setting hazards, both chemical and physical.

PUBLICATIONS

Heat Stress assessment according to the wet-bulb globe temperature (WBGT) index among workers of a steel mill in 2014

Journal

Journal of Occupational Health and Epidemiology (ISSN: 2251-8096) Vol 6, Issue 3, 2017

Status: Accepted and Published

WORK EXPERIENCE

Health, Safety, and Environment Project Consultant SIGE srl., Genoa (Italy)

May 24 - Oct 2024

Consulting on process safety and new technologies risk control methods such as fuel cells, hydrogen refueling, and refineries to provide safety and reliability from an engineering perspective. Simulation of hazardous scenarios with GIS, CFD models, and softwares to integrate safety policies with regulated norms. Employment of main statistical models in modeling such as Gaussian plume.

Quality, Health, Safety, and Environment Project Manager KTE Co, Tehran (Iran)

Jan 21 - Oct 21

Established and implemented a new safety management system model for mining projects, which resulted in improved safety audit scores. Led a 4M dollars HSE consultation project for POGC(oil & gas), which involved conducting risk analysis, proposing mitigation strategies, and providing PPE.

Arc GIS Mapping

100%

A certificate issued by Coursera (University of Toronto) for the complete course in **Arc GIS mapping**.

Safety Professional-RSPP

100%

A certificate issued by the national OH&S official office in Italy to prove skills in detecting occupational health and safety challenges.

Italian B1

100%

A certificate issued by the University of Genoa for **Italian** proficiency.

PGM Specialization

100%

A certificate issued by Coursera (Stanford University) for the complete course in **Probabilistic Graphical Models**.

Health, Safety, and Environment Training Manager HSE Arya Co, Tehran (Iran)

Oct 19 - Feb 21

Provided consultation and training to safety professionals in NEBOSH, IOSH, and IEMA certification courses, resulting in a 90% increase in candidates' certification rates over two years. Led the ISO 45001, 14001, and 9001 certification process for HSE Arya in 2020, successfully achieving integrated certification in the first audit.

Occupational Health and Safety Engineer Various Projects

March 14 - Sep 19

Implementation of national and international environmental health and safety techniques to provide a safer environment.

WORKSHOPS & CONFERENCES

Disaster Risk Management Online Training Series

Sep-Dec 2022

Conducted by Coventry University, CONRIS network, and the DRMKC of the European Commission.

EXTRACURRICULAR

- ECPLab member for working on Electrolysis Process Risks.
- Member of quality assurance (QA) committee of ENRM course at UNIGE.
- Student representative at "Consiglio del Corso di Studi" (2023-March 2024)
- Student representative in the Dept. Council of DITEN (2023-March 2024)

REFERENCES

- Gabriele Moser, Full Professor, University of Genoa.
- Sebastiano b. Serpico, Full Professor, University of Genoa.
- Ombretta Paladino, Associate Professor, University of Genoa.
- Fabrizio Bracco, Associate Professor, University of Genoa.