

# EUROPEAN CURRICULUM VITAE FORMAT



## RESEARCH EXPERIENCE

**Dec 2023 - ongoing** Geomatics for Resilience Against Water Scarcity (GRAW project) funded by the Italian Space Agency (ASI) - member of the research team of Sapienza University of Rome

## WORK EXPERIENCE

**Aug 2021 - Feb 2022 Special Project Supervisor** - GeoDB design and Digital Cadastral DataBase (DCDB) for agricultural sites - Faam Infrastructure Company – Tehran, Iran

## EDUCATION AND TRAINING

**2022 – 2025 Ph.D. of Infrastructure and Transportation at Sapienza University of Rome.**  
Thesis title: Earth Observation big data exploitation for water reservoirs and glaciers continuous monitoring.

**2018 – 2021 M.Sc. of Geographic Information Systems (GIS) at Shahid Rajaee University.**  
Thesis title: User Behavior Analysis Based on Spatial Background.  
Thesis mark: excellent, GPA: 18.99/20

**2014 – 2018 B.Sc. Of Geomatics Engineering at Jundi-Shapur University of Technology.**

## AWARDS AND ACHIEVEMENTS

2023

Second place in 5th Cassini Hackathon, SAR 4 SAR: Revolutionizing search and rescue operations in the Mediterranean Sea with Sentinel 1 and 2 satellite imagery

Selected for Google Summit - 2023 Geo for Good conference and workshops - San Francisco - USA

2022

Grant of young researchers, funded by Sapienza University of Rome.

Doctoral Program fellowship, at the Sapienza University of Rome.

## SPEAKER AT NATIONAL AND INTERNATIONAL CONGRESSES AND CONFERENCES

**14 to 19 of Apr 2024** The General Assembly 2024 of the European Geosciences Union (EGU) - Austria

**25 to 26 of Sept 2023** 2GG - Two Days of Geomatics (2GG) - Italy

**10 to 17 of Jul 2023** The 28th International Union of Geodesy and Geophysics - Germany  
**23 to 28 of Apr 2023** The 39th International Symposium on Remote Sensing of Environment - Turkey

**12 to 17 of Sept 2022** The 41st European Association of Remote Sensing Laboratories - Cyprus

## SKILLS

CODING	<i>Python, JavaScript, MATLAB, LATEX</i>
LIBRARIES	<i>Python: SciPy, NumPy, matplotlib, Seaborn, Icpypx, OpenCV, GDAL, Pandas, scikit-learn</i>
DATABASES	<i>SQL, PostgreSQL, PostGIS</i>
CLOUD COMPUTING	<i>Google Earth Engine (JS API), Microsoft Planetary Computer</i>
WEB DEV	<i>HTML, CSS, JavaScript, Leaflet</i>
SOFTWARES	<i>ArcGIS, ENVI, QGIS, SAGA GIS</i>
CERTIFICATIONS	<i>LiDAR, SAR, and GNSS seismology (GATHERS Advanced School 2024), Deep Learning Applications within ArcGIS (ESRI 2023), Search Engine Optimization of digital marketing fundamentals (Google 2022)</i>

## JOURNAL ARTICLES

**A. Hamoudzadeh**, R. Ravanelli, and M. Crespi, “SWOT Level 2 Lake Single-Pass Product: The L2\_HR\_LakeSP Data Preliminary Analysis for Water Level Monitoring,” *Remote Sensing*, vol. 16, no. 7, 2024, issn: 2072-4292. doi: <https://doi.org/10.3390/rs16071244>.

**A. Hamoudzadeh**, R. Ravanelli, and M. G. Crespi, “Global-scale monitoring of inland water surface levels with GEDI geo big data using Google Earth Engine: Potentialities and issues,” *Under Review*, 2024.

**A. Hamoudzadeh**, R. Ravanelli, and M. Crespi, “GEDI data within Google Earth Engine: Preliminary analysis of a resource for inland surface water monitoring,” *The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences*, vol. XLVIII-M-1-2023, pp. 131–136, 2023. doi: <https://doi.org/10.5194/isprs-archives-XLVIII-M-1-2023-131-2023>.

**A. Hamoudzadeh** and S. Behzadi, “Evaluation of effective factors on air pollution using optimized cellular automata. a case study of Tehran,” *Journal of Engineering Research*, 2021. doi: <https://doi.org/10.36909/jer.13749>.

**A. Hamoudzadeh** and S. Behzadi, “Predicting user’s next location using machine learning algorithms,” *Spatial Information Research*, vol. 29, no. 3, pp. 379–387, 2021. doi: <https://doi.org/10.1007/s41324-020-00358-2>.

## CONFERENCE PROCEEDINGS

**A. Hamoudzadeh**, R. Ravanelli, and M. Crespi, “Glacier monitoring using GEDI data in Google Earth Engine: Outlier removal and accuracy assessment,” 2024. doi: <https://doi.org/10.5194/egusphere-egu24-10176>.

**A. Hamoudzadeh**, R. Ravanelli, and M. G. Crespi, “GEDI data within Google Earth Engine: Potentials and analysis for inland surface water monitoring,” in *European Geosciences Union*, 2023. doi: <https://doi.org/10.5194/egusphere-egu23-15083>.

**A. Hamoudzadeh**, R. Ravanelli, and M. G. Crespi, “Italian lakes water level monitoring through GEDI altimetric data within Google Earth Engine: A preliminary analysis,” in *XXVIII General Assembly of the International Union of Geodesy and Geophysics (IUGG) (Berlin 2023)*, 2023. doi: <https://doi.org/10.57757/IUGG23-3886>.

**A. Hamoudzadeh**, R. Ravanelli, and M. G. Crespi, “Global monitoring of inland water surface with GEDI geo big data using Google Earth Engine: Preliminary

analysis, potentials and issues,” in Google Summit Geo4Good, 2022.

**A. Hamoudzadeh**, R. Ravanelli, and M. G. Crespi, “Inland water surface global monitoring with GEDI geo big data using Google Earth Engine: Preliminary analysis, potentials, and issues,” in EARSeL Cyprus 2022, 2022.

**LANGUAGES**

- Reading skills
- Writing skills
- Speaking skills

- Reading skills
- Writing skills
- Speaking skills

- *Reading skills*
- *Writing skills*
- Speaking skills

**English**

C2  
C2  
C2

**Italian**

B1  
A2  
A2

**Arabic**

C1  
C1  
B2

**Persian**

MOTHER TONGUE

In compliance with the Italian legislative Decree no. 196 dated 30/06/2003, I hereby authorize you to use and process my personal details contained in this document.

Rome, 6 June 2024