






# Alireza Hamoudzadeh




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## Education



- 2022 – 2025     **Ph.D. of Infrastructure and Transportation** in 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)** in Shahid Rajaei University.  
Thesis title: *User Behavior Analysis Based on Spatial Background.*
- 2014 – 2018     **B.Sc. Of Geomatics Engineering** in Jundi-Shapur University of Technology.

## Research Publications

### Journal Articles

- 1 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: 10.5194/isprs-archives-XLVIII-M-1-2023-131-2023.
- 2 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 Preparation*, 2023.
- 3 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: 10.36909/jer.13749.
- 4 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: 10.1007/s41324-020-00358-2.

### Conference Proceedings

- 1 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: 10.5194/egusphere-egu23-15083.
- 2 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: 10.57757/IUGG23-3886.
- 3 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.
- 4 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.

## Skills

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Languages	📖	English: C2, Italian: A2, Persian: Native
Coding	📖	Python, JavaScript, PHP, MATLAB, L <sup>A</sup> T <sub>E</sub> X
Databases	📖	SQL, PostgreSQL
Cloud Computing	📖	Google Earth Engine (JS API), Microsoft Planetary Computer
Web Dev	📖	HTML, CSS, JavaScript, Leaflet
Softwares	📖	ArcGIS, ENVI, QGIS, SAGA GIS, PostGIS

## Miscellaneous Experience

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### Awards and Achievements

- 2022
- 📖 **Grant of young researchers**, funded by Sapienza University of Rome.
  - 📖 **Doctoral Program fellowship**, at the Sapienza University of Rome.