GIANDOMENICO MASTRANTONI

ENGINEERING GEOLOGIST – GEOSCIENTIST

EXPERIENCES

- July 2023 – Present

Professor at Guglielmo Marconi University, Rome.

Courses: Engineering Geology; Remote sensing monitoring for environment.

- November 1st, 2020 – Present

Doctoral researcher (Ph.D.) at Sapienza University of Rome and CERI Research Centre.

Topic: Data-driven Multi-Hazard Risk Modelling in Urban Areas.

- September 21st, 2022 – December 18th, 2022

Visiting PhD student at Department of Civil Engineering of University College London (UCL)

- January 3rd, 2020 – October 23rd, 2020

Geologist at NHAZCA S.r.l., start-up of Sapienza University of Rome with responsibilities for analysis of remote sensing data with landslide hazard monitoring and assessment purposes.

- June 3rd, 2019 – August 23rd, 2019

GeoEngineering & Geoscience Research Accelerator Program (**GeoRA**) at the Vancouver offices of BGC Engineering Inc.

DEGREE & EDUCATION

- December 2019

Excellence Student award in Engineering Geology Sapienza University of Rome

- September 2017 – December 2019

Master's Degree in Engineering Geology

Sapienza University of Rome, Italy

Graduation Grade: **110/110 cum Laude**

Tutor: Prof. Paolo Mazzanti

- September 2014 – December 2017

Bachelor's Degree in Geological Sciences

Sapienza University of Rome, Italy

Graduation Grade: **108/110**

PROFESSIONAL SKILLS

Excellent written, verbal, and non-verbal communication balanced and confident public speaking.

Interpersonal skills: conflict resolution, team building, team management, relationship building.

Organizational skills, such as attention to details, project management, meeting deadlines, punctuality.

Goal setting, decision making and information gathering.

Flexibility, analytical thinking, and problem solving.

Geological Skills

Geospatial programming and data-driven geohazards modelling and prediction.
<u>Remote Sensing</u>: Ground-based SAR Interferometry, terrestrial laser scanning, UAV and terrestrial photogrammetry, 3D point clouds analysis.

Computer Skills

Geographic Information Systems (ArcGIS, QGIS),

Data analysis and Machine Learning with Python

PostgreSQL and PostGIS Database

Cloud Compare, Global Mapper, Office 365.
<u>Operating Systems</u>: Macintosh, Windows, Linux.

<u>Graphics</u>: Adobe Illustrator.

Languages

Italian, English (fluent)

PUBLICATIONS

- Cosentino, Antonio, Giacomo Santicchia, Giandomenico Mastrantoni, Jagadish Kundu, And Paolo Mazzanti. 2023. "The Poggio Baldi Natural Laboratory: An Experimental And Permanent Monitoring Site For The Assessment Of Rockfall Phenomena." https://Doi.Org/10.5194/Egusphere-Egu23-15842.
- Esposito, C., G. Mastrantoni, G. M. Marmoni, B. Antonielli, P. Caprari, A. Pica, L. Schilirò, P. Mazzanti, And F. Bozzano. 2023. "From Theory To Practice. Optimisation Of Available Information For Landslide Hazard Assessment In Rome Relying On Official, Fragmented Data Sources." Landslides, No. 10. https://Doi.Org/10.1007/S10346-023-02095-7.
- Mastrantoni, Giandomenico, Patrizia Caprari, Carlo Esposito, Gian Marco Marmoni, Paolo Mazzanti, And Francesca Bozzano. 2022. "Data Requirements And Scientific Efforts For Reliable Large-Scale Assessment Of Landslide Hazard In Urban Areas." https://Doi.Org/10.5194/Egusphere-Egu22-4669.
- Mastrantoni, Giandomenico, Jagadish Kundu, Giacomo Santicchia, Antonio Cosentino, Carlo Robiati, And Paolo Mazzanti. 2023. "Rockfall Hazard

Assessment Of The Poggio Baldi Landslide By Combining 3d And 2d Multitemporal Remote Sensing Data." https://Doi.Org/10.5194/Egusphere-Egu23-16048.

- Mastrantoni, Giandomenico, Claudia Masciulli, Roberta Marini, Carlo Esposito, Gabriele Scarascia Mugnozza, And Paolo Mazzanti. 2023. "A Novel Model For Multi-Risk Ranking Of Buildings At City Level Based On Open Data. The Test Site Of Rome, Italy." Geomatics, Natural Hazards & Risk 14 (1). https://Doi.Org/10.1080/19475705.2023.2275541.

- Mastrantoni, G., G. M. Marmoni, C. Esposito, F. Bozzano, G. Scarascia Mugnozza, And P. Mazzanti. 2023. "Reliability Assessment Of Open-Source Multiscale Landslide Susceptibility Maps And Effects Of Their Fusion." Georisk, 1–18. https://Doi.Org/10.1080/17499518.2023.2251139.

- Robiati, Carlo, Giandomenico Mastrantoni, Mirko Francioni, Matthew Eyre, John Coggan, And Paolo Mazzanti. 2023. "Contribution Of High-Resolution Virtual Outcrop Models For The Definition Of Rockfall Activity And Associated Hazard Modelling." Land 12 (1): 1–20. Https://Doi.Org/10.3390/Land12010191.

- Romeo, Saverio, Antonio Cosentino, Francesco Giani, Giandomenico Mastrantoni, And Paolo Mazzanti. 2021. "Combining Ground Based Remote Sensing Tools For Rockfalls Assessment And Monitoring. The Poggio Baldi Landslide Natural Laboratory." Sensors 21 (8). https://Doi.Org/10.3390/S21082632.

- Romeo, S, Qc Tran, G Mastrantoni, D Do Minh, Dd Minh, Ht Nguyen, Da Nguyen, And P Mazzanti. 2020. "Remote Monitoring Of Natural Slopes. Insights From The First Terrestrial InSAR Campaign In Vietnam." Italian Journal Of Engineering Geology And Environment 20 (1): 52–60. https://Doi.Org/10.4408/Ijege.2020-01.O-05.

CONFERENCES AND COURSES

11/2023 – World Landslide Forum, Florence, Italy (Oral Presentation).

06/2023 – XXII Convegno Nazionale AIGAA, Urbino, Italy (Oral Presentation).

05/2023 – IX International Course on Geotechnical and Structural Monitoring (IcGSM), Rome. Member of the organizing committee.

04/2023 – European Geoscience Union, General Assembly, Vienna, Austria (Oral Presentation).

10/2022 – Spatial Data science MOOC by ESRI.

09/2022 – LARAM School (*Landslide Risk Assessment and Mitigation*). Salerno, Italy.

06/2022 – GeoPython Conference, Basel, Switzerland (Attendee)

05/2022 – European Geoscience Union, General Assembly, Vienna, Austria (Oral Presentation).

10/2021 – Programming GIS with Python taught by TerreLogiche S.r.l.

04/2020 - 05/2021 – DataCamp Course "Data scientist with Python".

05/2020 – Udemy Course "Python 3.8 complete guide: from beginner to expert".