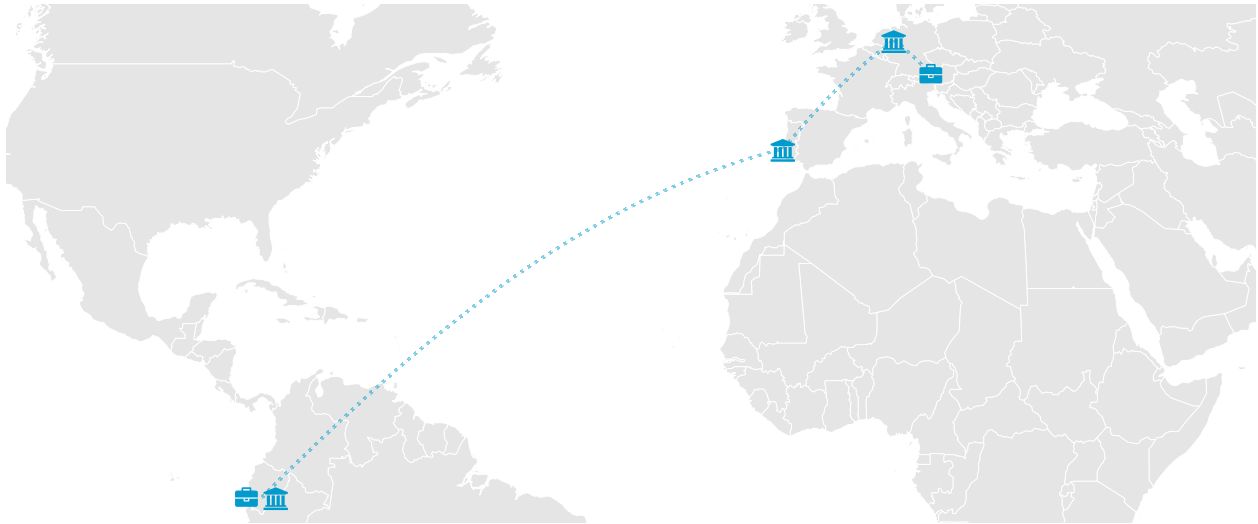# Lorena Abad

RESEARCHING THE ENVIRONMENT THROUGH GEOSPATIAL TECHNOLOGIES

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✈ My journey

💼 Professional Experience

Researcher - Department of Geoinformatics - Z_GIS
Salzburg, AT

UNIVERSITY OF SALZBURG
04, 2019 - Present

- Remote sensing and GIS specialist studying natural geohazards in the Risk, Hazard & Climate research group for different projects.
- Python package developer for "SliDEM: Assessing the suitability of DEMs derived from Sentinel-1 for landslide volume estimation".
- Landslide susceptibility modeling for "MontEO: The impact of mass movements on alpine trails and huts assessed by EO data".
- Automatic mapping of geomorphological features with deep learning and knowledge-based techniques for "STEC: Smarter Targeting of Erosion Control".

Research Assistant - Grupo de Investigación de Ciudades Sustentables Llactalab
Cuenca, EC

UNIVERSIDAD DE CUENCA
05, 2017 - 08, 2017

- Spatio-temporal data analyst for the project: "Study of Cyclists and Pedestrian Mobility Patterns in Cuenca for a Sustainable Mobility".

Research Assistant - Carrera de Ingeniería Ambiental - Facultad de Ciencias Químicas
Cuenca, EC

UNIVERSIDAD DE CUENCA
03, 2016 - 08, 2017

- CEDIA project "Geo-statistical Inference of Meteorological Data for Azuay and Chimborazo provinces".
- Project "Water Quality and Environmental Variables Monitoring in Artificial Habitats for Endangered Species in Cuenca".
- Project "Determination of Particulate Matter PM10, PM2.5, and noise in Cuenca canton".

🏛 Education

Universidade Nova de Lisboa & Westfälische Wilhelms-Universität Münster
Lisbon, PT & Münster, DE

ERASMUS MUNDUS MSC. GEOSPATIAL TECHNOLOGIES
2017 - 2019

- Covering Geospatial Data Mining, Geostatistics, Remote Sensing, Geographic Information Science, Cartography, Reference Systems, Spatial Data Science with R and Python, Unmanned Aerial Systems.
- Masters Thesis: Validating a bike network analysis score based on open data as a connectivity measure of urban cycling infrastructure adapted for European cities. Supervised by Prof. Dr. Edzer Pebesma. URL: *http://hdl.handle.net/10362/67511*

Universidad de Cuenca
Cuenca, EC

ENVIRONMENTAL ENGINEER BSC.
2011 - 2016

- Covering Cartography, Remote Sensing, Ecology, Hydrology, Meteorology and Climatology, Environmental Studies, Natural Resources Management, among 66 subjects during 10 semesters.
- Bachelor Thesis (in spanish): Particulate Matter less than 10 microns concentration estimation through Remote Sensing in the Urban Area of Cuenca city. Supervised by MSc. Danilo Mejía Coronel. URL: *http://dspace.ucuenca.edu.ec/handle/123456789/25484*

📄 Selected Publications

For a complete list of publications see *my Google Scholar profile*.

- Dabiri, Z., Hölbling, D., **Abad, L.**, Guðmundsson, S. (2021). *Comparing the Applicability of Sentinel-1 and Sentinel-2 for Mapping the Evolution of Ice-marginal Lakes in Southeast Iceland*. GI_Forum, 1(1), 46–52.
- Dabiri, Z., Hölbling, D., **Abad, L.**, Helgason, J. K., Sæmundsson, Þ., Tiede, D. (2020). *Generation of Multi-Temporal Dems from Sentinel-1 for Assessing Geomorphological Changes in the Hítardalur Valley, Western Iceland*. Geological Society of America Abstracts with Programs, 52 (6).
- Dabiri, Z., Hölbling, D., **Abad, L.**, Helgason, J. K., Sæmundsson, Þ., Tiede, D. (2020). *Assessment of Landslide-Induced Geomorphological Changes in Hítardalur Valley, Iceland, Using Sentinel-1 and Sentinel-2 Data*. Applied Sciences, 10(17), 5848.
- Hennig, S., **Abad, L.**, Hölbling, D., Tiede, D. (2020). *Implementing Geo Citizen Science Solutions: Experiences from the citizenMorph Project*. Journal for Geographic Information Science, 7(2), 3–14.
- **Abad, L.**, Hölbling, D., Spiekermann, R., Dabiri, Z., Prasicek, G., Argentin, A.-L. (2020). *Mapping and monitoring of landslide-dammed lakes using Sentinel-2 time series -a case study after the 2016 Kaikōura Earthquake in New Zealand*. EGU General Assembly 2020.
- Hölbling, D., **Abad, L.**, Dabiri, Z., Prasicek, G., Tsai, T.-T., Argentin, A.-L. *Mapping and Analyzing the Evolution of the Butangbunasi Landslide Using Landsat Time Series with Respect to Heavy Rainfall Events during Typhoons*. Applied Sciences. 2020, 10, 630.
- **Abad, L.**, van der Meer, L. (2018). *Quantifying Bicycle Network Connectivity in Lisbon Using Open Data*. Information, 9(11), 14.

🏅 Distinctions

2018	Benigno Malo Prize - University Honors Award	*Universidad de Cuenca*
2018	AGILE 2018 conference - travel grant	*AGILE & ESRI*
2017	Erasmus Mundus Scholarship	*European Commission*
2014 - 2016	Vanguardia Honors Program	*Universidad de Cuenca*

👥 Memberships

since 2020	R-Ladies Global 🔗
since 2020	Women in Geospatial 🔗
since 2020	European Geosciences Union
since 2020	Erasmus Mundus Association

🧠 Skills

⚙ Technical skills

Coding Languages	Software	Other
R – Python – SQL – JavaScript	QGIS – Earth Engine – RStudio – SAGA – PostgreSQL – ArcGIS – eCognition – GIMP – Mendeley	Git – Markdown – LaTex – OpenStreetMap

📅 Organizational skills

06, 2020	e-Rum 2020 satellite event: *sfnetworks* Webinar and Hackathon 🔗	*Online Event*
09, 2019	citizenMorph App Testing Workshop	*Höfn, IS*
12, 2018	GeoMundus 2018 🔗	*Lisbon, PT*
2013 - 2014	Vicepresident of the Student Association of Environmental Engineers	*Cuenca, EC*

🔤 Languages

Skill	Spanish	English	French	German	Portuguese	Dutch
Reading	Native	C2	B2	B1	B1	A2
Writing	Native	C1	B2	B1	B1	A1
Listening	Native	C2	B2	B1	B1	A2
Speaking	Native	C2	B2	B1	B1	A2

Common European Framework of Reference for Languages: A1/A2: Basic User. B1/B2: Independent User. C1/C2: Proficient User