



Lorena Abad

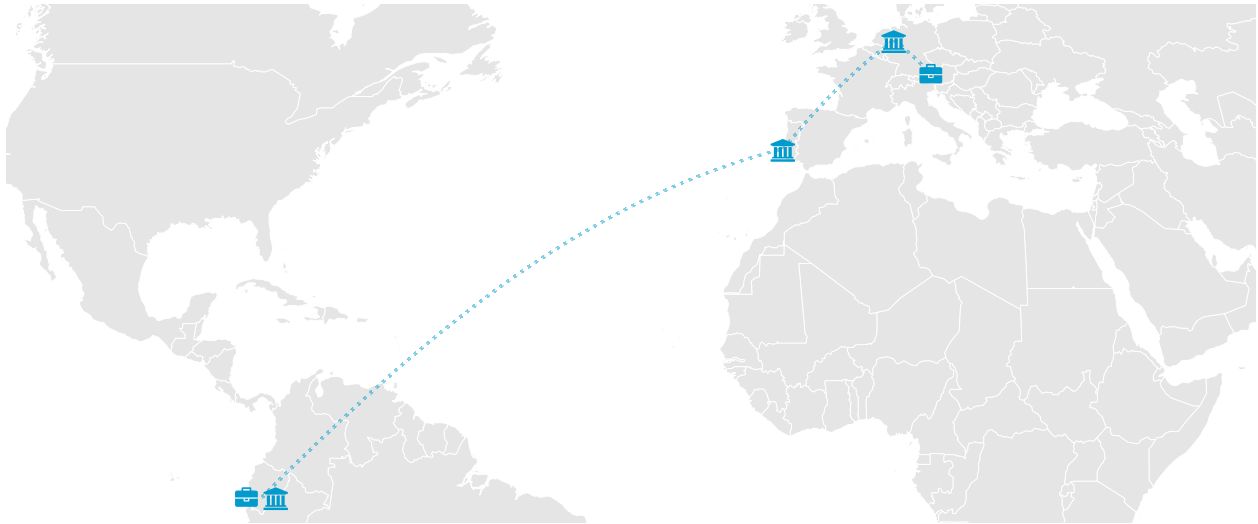
RESEARCHING THE ENVIRONMENT THROUGH GEOSPATIAL TECHNOLOGIES

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✈ My journey



📁 Professional Experience

Researcher - Department of Geoinformatics - Z_GIS

UNIVERSITY OF SALZBURG

Salzburg, AT

04, 2019 - Present

- Remote sensing and GIS specialist studying natural geohazards in the Risk, Hazard & Climate research group for different projects:
- SLiDEM: Assessing the suitability of DEMs derived from Sentinel-1 for landslide volume estimation | Role: Python package developer.
- MontEO: The impact of mass movements on alpine trails and huts assessed by EO data | Role: Susceptibility mapping.
- STEC: Smarter Targeting of Erosion Control | Role: Mapping geomorphological features with deep learning and knowledge-based techniques.
- RiCoLa: Detection and Analysis of Landslide-induced River Course Changes and Lake Formation.
- MORPH: Mapping, Monitoring and Modelling the Spatio-Temporal Dynamics of Land Surface Morphology.
- citizenMorph: Observation and Reporting of Landscape Dynamics by Citizens.

Research Assistant - Grupo de Investigación de Ciudades Sustentables Llaताल

UNIVERSIDAD DE CUENCA

Cuenca, EC

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

UNIVERSIDAD DE CUENCA

Cuenca, EC

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

ERASMUS MUNDUS MSc. GEOSPATIAL TECHNOLOGIES

Lisbon, PT & Münster, DE

2017 - 2019

- Geospatial Data Mining, Geostatistics, Remote Sensing, Geographic Information Science, 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

ENVIRONMENTAL ENGINEER BSc.

Cuenca, EC

2011 - 2016

- Environmental Studies, Natural Resources Management, Cartography, Remote Sensing, Ecology, Hydrology, Meteorology and Climatology, among 66 subjects.
- 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, P., 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.

Awards & Distinctions

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|-------------|--|------------------------------|
| 2019 | ISC funding for sfnetworks | <i>R-Consortium</i> |
| 2018 | Benigno Malo Prize - University Honors Award | <i>Universidad de Cuenca</i> |
| 2018 | AGILE 2018 conference - travel grant | <i>AGILE & ESRI</i> |
| 2017 | Erasmus Mundus Scholarship | <i>European Commission</i> |
| 2014 - 2016 | Vanguardia Honors Program | <i>Universidad de Cuenca</i> |

Volunteer work

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| 2020-2021 | Group Peer Mentor in Women in Geospatial+ Mentorship Program |
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Skills

TECHNICAL SKILLS

Coding Languages

R – Python – SQL – JavaScript

Software

QGIS – Earth Engine – RStudio –
SAGA – PostgreSQL – ArcGIS –
eCognition – GIMP – Mendeley

Other

Git – Markdown – LaTeX –
OpenStreetMap

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

References

- Prof. Dr. Edzer Pebesma**, Institute for Geoinformatics, WWU, edzer.pebesma@uni-muenster.de
- Prof. Dr. Marco Painho** NOVA Information Management School, painho@novaims.unl.pt
- Dr. Daniel Hölbling**, Department of Geoinformatics - Z_GIS, PLUS, daniel.hoelbling@plus.ac.at