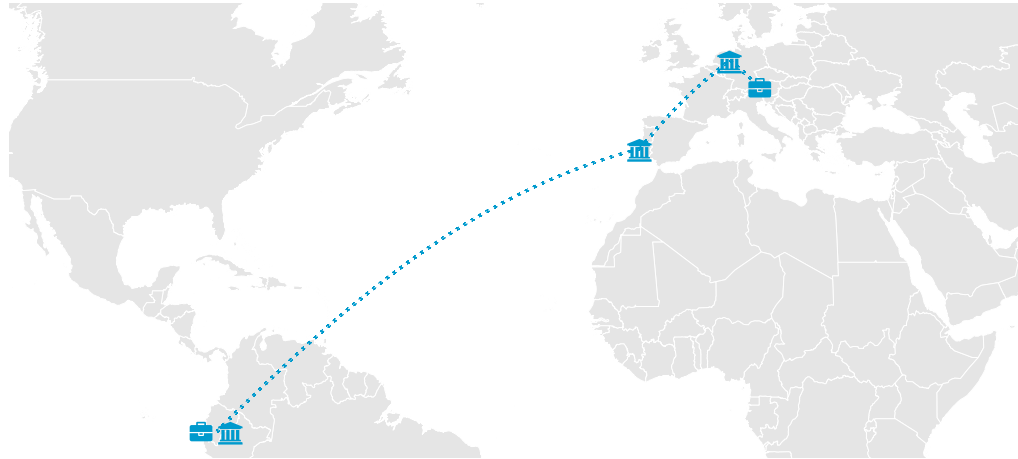# Lorena Abad

RESEARCHER | ENVIRONMENTAL ENGINEER | MSc. GEOSPATIAL TECHNOLOGIES

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Nationality: Ecuadorian, Birthdate: 05/01/1994

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✈ My journey

💼 Professional Experience

Researcher - Department of Geoinformatics - Z_GIS	*Salzburg, AT*
UNIVERSITY OF SALZBURG	*04, 2019 - Present*

- Researcher for the MORPH, RiCoLa, STEC, citizenMORPH, MontEO projects in the Landslide division of the OBIA group.

Research Assistant - Grupo de Investigación de Ciudades Sustentables Llactalab - Departamento Interdisciplinario de Espacio y Población	*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".

Technical Assistant - Carrera de Ingeniería Ambiental - Facultad de Ciencias Químicas	*Cuenca, EC*
UNIVERSIDAD DE CUENCA	*09, 2016 - 08, 2017*

- CEDIA project "Geo-statistical Inference of Meteorological Data for Azuay and Chimborazo provinces".

Researcher - Carrera de Ingeniería Ambiental - Facultad de Ciencias Químicas	*Cuenca, EC*
UNIVERSIDAD DE CUENCA	*10, 2016 - 01, 2017*

- Project "Water Quality and Environmental Variables Monitoring in Artificial Habitats for Endangered Species in Cuenca".

Research Assistant - Carrera de Ingeniería Ambiental - Facultad de ciencias Químicas	*Cuenca, EC*
UNIVERSIDAD DE CUENCA	*03, 2016 - 07, 2016*

- Project "Determination of Particulate Matter PM10, PM2.5, and noise in Cuenca canton".

Teaching Assistant - Carrera de Ingeniería Ambiental - Facultad de Ciencias Químicas	*Cuenca, EC*
UNIVERSIDAD DE CUENCA	*03, 2012 - 07, 2015*

- Introduction to Physics and Remote Sensing courses for the Environmental Engineering Career from Universidad de Cuenca.

Intership - Grupo de Investigación de Ciudades Sustentables Llactalab - Departamento Interdisciplinario de Espacio y Población	*Cuenca, EC*
UNIVERSIDAD DE CUENCA	*05, 2015 - 06, 2015*

- Cartographic data gathering organization, topographic correction and categorization of urban land uses, scientific papers analysis for bibliographic review.

Intership - Departamento de Recursos Hídricos y Ciencias Ambientales (iDRHICA)	*Cuenca, EC*
UNIVERSIDAD DE CUENCA	*07, 2014 - 09, 2014*

- Assess the functioning state of Davis Station sensors, identify similarities and differences of two river basins hydrograms, analyze the effects of temperature and relative humidity on reference evapotranspiration calculation.

📄 Publications _____

Mapping and Analyzing the Evolution of the Butangbunasi Landslide Using Landsat Time Series with Respect to Heavy Rainfall Events during Typhoons *Journal Article*

Applied Sciences, MDPI *01, 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. Appl. Sci. 2020, 10, 630. https://doi.org/10.3390/app10020630

An Object-Based Approach for Monitoring the Evolution of Landslide-dammed Lakes and Detecting Triggering Landslides in Taiwan *Journal Article*

ISPRS - International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences *09, 2019*

- Dabiri, Z., Hölbling, D., **Abad, L.**, Prasicek, G., Argentin, A.-L., Tsai, T.-T. (2019). An Object-Based Approach for Monitoring the Evolution of Landslide-dammed Lakes and Detecting Triggering Landslides in Taiwan. ISPRS - International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences, XLII-3/W8, 103–108. https://doi.org/10.5194/isprs-archives-XLII-3-W8-103-2019

Assessment of Landslide-Induced Morphology Changes using an Object-Based Image Analysis Approach: A Case Study of Hitardalur, Iceland *Journal Article*

ISPRS - International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences *09, 2019*

- Dabiri, Z., Hölbling, D., **Abad, L.**, Tiede, D. (2019). Assessment of Landslide-Induced Morphology Changes using an Object-Based Image Analysis Approach: A Case Study of Hitardalur, Iceland. ISPRS - International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences, XLII-3/W8, 109–114. https://doi.org/10.5194/isprs-archives-XLII-3-W8-109-2019

Distinct mechanisms of landslides in moraines associated with the post-LIA glacier thinning: observations from the Kinzl glacier, Huascarán, Peru *Conference Proceedings*

17th International Symposium on Geo-disaster Reduction *08, 2019*

- Emmer, A., **Abad, L.**, Hölbling, D., Klimeš, J., Štepánek, P., Zahradnícek, P. (2019). Distinct mechanisms of landslides in moraines associated with the post-LIA glacier thinning: observations from the Kinzl glacier, Huascarán, Peru. In 17th International Symposium on Geo-disaster Reduction. Issyk Kul.

Mapping the Evolution of the Butangbunasi Landslide, Taiwan, using Landsat Time Series *Conference Proceedings*

27th International Union of Geodesy and Geophysics General Assembly *06, 2019*

- Hölbling, D., Dabiri, Z., Tsai, T.-T., Prasicek, G., Tsui, C. Y., Schäffer, L., Argentin, A., **Abad, L.** (2019). Mapping the Evolution of the Butangbunasi Landslide, Taiwan, using Landsat Time Series. In 27th IUGG General Assembly. Montreal, Canada.

Quantifying Bicycle Network Connectivity in Lisbon Using Open Data *Journal Article*

Information, MDPI *11, 2018*

- **Abad, L**., van der Meer, L. (2018). Quantifying Bicycle Network Connectivity in Lisbon Using Open Data. Information, 9(11), 14. https://doi.org/10.3390/info9110287

Particulate Matter less than 10 microns concentration estimation through Remote Sensing in the Urban Area of Cuenca city *Conference Proceedings*

XVI Conferencia de Sistemas de Información Geográfica *09, 2017*

- **Abad, L.**, Mejía-Coronel, D. (2017). Estimación De La Concentración De Material Particulado Menor a 10 Micras a Través De Sensores Remotos En El Área Urbana De La Ciudad De Cuenca. In XVI Conferencia de Sistemas de Información Geográfica (pp. 381-390). Cuenca, Ecuador: Universidad del Azuay.

🏛 Education _____

Westfälische Wilhelms-Universität Münster *Münster, DE*

Erasmus Mundus Msc. Geospatial Technologies *2018 - 2019*

- S2 2018: covering Cartography, Reference Systems, Spatial Data Science with R, Unmanned Aerial Systems
- S3 2018: 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.

Universidade Nova de Lisboa *Lisbon, PT*

Erasmus Mundus Msc. Geospatial Technologies *2017 - 2019*

- S1, 2017: covering Geospatial Data Mining, Geostatistics, Remote Sensing, Geographic Information Science, Python programming.
- More info: mastergeotech.info

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: Particulate Matter less than 10 microns concentration estimation through Remote Sensing in the Urban Area of Cuenca city.
- More info: ucuenca.edu.ec
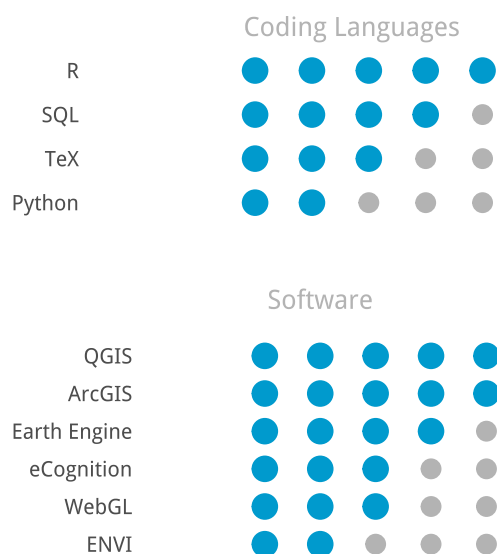
Universität Osnabrück *Osnabrück, DE*

2nd International Biodiversity Summer School: The Diversity of Ecosystems, Genes and Species *2015*

- More info: uni-osnabrueck.de

🧠 Personal Skills

⚙️ TECHNICAL SKILLS

Coding Languages

Skill	Level
R	●●●●●
SQL	●●●●○
TeX	●●●○○
Python	●●○○○

Software

Skill	Level
QGIS	●●●●●
ArcGIS	●●●●●
Earth Engine	●●●●○
eCognition	●●●○○
WebGL	●●●○○
ENVI	●●○○○

🔤 LANGUAGES

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

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

🏅 Distinctions

Year	Distinction	Institution
2018	Benigno Malo Prize - University Honors Award	*Universidad de Cuenca*
2018	AGILE 2018 conference - travel grant	*AGILE & ESRI*
2017	Erasmus Mundus Scholarship	*European Commission*
2015	Best Scientific Poster - 2nd International Summer School "The Biodiversity of Genes, Species and Ecosystems"	*Universität Osnabrück*
2014 - 2016	Vanguardia Honors Program	*Universidad de Cuenca*