Lorena Abad

MSc. Geospatial Technologies Second Year Student
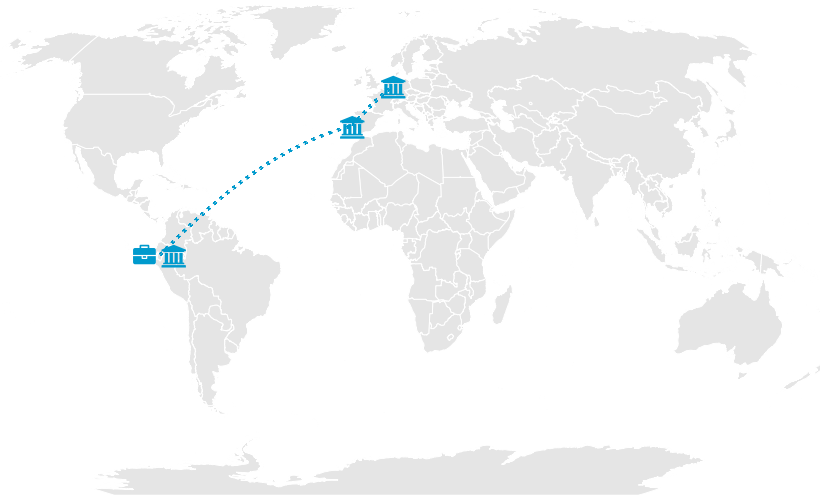
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👓 Professional summary

I am an environmental engineer from Cuenca, Ecuador finishing my studies for an Erasmus Mundus Master of Science in Geospatial Technologies, expected by March 2019. My research scope includes spatial data analysis, particularly focused on R programming; remote sensing and earth observation data analysis, specially optical satellite imagery applied to environmental studies and analyses such as air pollution, land use/land cover change; geostatistical analysis of climate data; and ecological modelling. I feel very keen to pursue a career in research, science, and academia.

✈ My journey

🏛 Education

Westfälische Wilhelms-Universität Münster
Münster, Germany

ERASMUS MUNDUS MSC. GEOSPATIAL TECHNOLOGIES
2018 - Present

- 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.
- More info: mastergeotech.info

Universidade Nova de Lisboa
Lisbon, Portugal

ERASMUS MUNDUS MSC. GEOSPATIAL TECHNOLOGIES
2017 - Present

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

Universidad de Cuenca
Cuenca, Ecuador

ENVIRONMENTAL ENGINEER BSc.
2011 - 2016

- Covering Biology, Ecology,Hydrology, Meteorology and Climatology, Environmental Studies, Natural Resources Management.
- Among 66 subjects during 10 semesters.
- More info: ucuenca.edu.ec

Universität Osnabrück
Osnabrück, Germany

BIODIVERSITY SUMMER SCHOOL: THE DIVERSITY OF ECOSYSTEMS, GENES AND SPECIES
2015

- More info: uni-osnabrueck.de

💼 Professional Experience

Universidad de Cuenca *Cuenca, EC*

Research Assistant - Grupo de Investigación de Ciudades Sustentables Llactalab - Departamento

Interdisciplinario de Espacio y Población *05, 2017 - 08, 2017*

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

Universidad de Cuenca *Cuenca, EC*

Technical Assistant - Carrera de Ingeniería Ambiental - Facultad de Ciencias Químicas *09, 2016 - 08, 2017*

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

Universidad de Cuenca *Cuenca, EC*

Researcher - Carrera de Ingeniería Ambiental - Facultad de Ciencias Químicas *10, 2016 - 01, 2017*

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

Universidad de Cuenca *Cuenca, EC*

Research Assistant - Carrera de Ingeniería Ambiental - Facultad de ciencias Químicas *03, 2016 - 07, 2016*

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

Universidad de Cuenca *Cuenca, EC*

Teaching Assistant - Carrera de Ingeniería Ambiental - Facultad de Ciencias Químicas *03, 2012 - 07, 2015*

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

Universidad de Cuenca *Cuenca, EC*

Intership - Grupo de Investigación de Ciudades Sustentables Llactalab - Departamento Interdisciplinario de

Espacio y Población *05, 2015 - 06, 2015*

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

Universidad de Cuenca *Cuenca, EC*

Intership - Departamento de Recursos Hídricos y Ciencias Ambientales (iDRHICA) *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

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

Exploratory analysis of volunteer cyclists behavior through spatio-temporal patterns

mining in Cuenca, Ecuador *Journal Article*

Maskana *06, 2018*

- Abad, L., & Orellana, D. (2018). Análisis exploratorio de comportamientos de ciclistas voluntarios mediante minería de patrones espacio-temporales en Cuenca, Ecuador. Maskana, 9(1), 141–151.

Potential distribution of the Polylepis genus in the Paute river basin under a climate

change scenario *Journal Article*

Revista de La Facultad de Ciencias Químicas *12, 2018*

- Mejía-Coronel, D., Tonón, M., & Abad, L. (2018). Distribución Potencial del Género Polylepis en la Cuenca del Río Paute bajo un Escenario de Cambio Climático. Revista de La Facultad de Ciencias Químicas., December(19), 21–37.

Water quality and environmental variables in endangered amphibia habitats in Cuenca

urban area *Journal Article*

Revista de La Facultad de Ciencias Químicas *11,2017*

- Abad, L., Mejía, D., León, P., Cárdenas, I., Pacheco, B., & Tonón, M. (2017). Calidad del Agua y Variables Ambientales en Hábitats para Anfibios Amenazados en la Zona Urbana de Cuenca. Revista de La Facultad de Ciencias Químicas. Universidad de Cuenca.

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.

✪ Distinctions

2018	Benigno Malo Prize - University Honors Award	*Universidad de Cuenca*
2017	Erasmus Mundus Scholarship	*European Commission*
2014 - 2016	Vanguardia Honors Program	*Universidad de Cuenca*

🧠 Personal Skills

⚙ TECHNICAL SKILLS

Coding Languages

R	●●●●●
SQL	●●●●○
TeX	●●●○○
Python	●●○○○

Software

QGIS	●●●●●
ArcGIS	●●●●●
PostgreSQL/PostGIS	●●●●○
MaxEnt	●●○○○
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

💬 Referees

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Heisenbergstraße 2, 48149,
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✉ NOVA Information Management School
Campus de Campolide, 1070-312
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✉ Grupo de Investigación LlactaLAB
Av. 12 de Abril y Agustín Cueva, 010203
Cuenca, Ecuador