

CURRICULUM VITAE

PERSONAL INFORMATION

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PROFESSION

- ▷ Period May 2023–Dec 2023
 - Employer **OPS, GIZ**
 - Position Data Science Consultant
 - Main responsibilities Data cleaning, Automatic reporting, Research publications.

- ▷ Period Jan 2022–Apr 2023
 - Employer **FAO**
 - Position National Coordinator Consultant/National MRV
 - Main responsibilities Climate change national policy formulation, Budget execution and Technical activities follow up, Proposals preparation (UK Pact, NAMA Facility), Workshops Facilitator, Coordination with National Designed Authority and stakeholders (public and private), Progress reports to Green Climate Fund.

- ▷ Period July-Aug 2022
 - Employer **Universidad Central del Ecuador**
 - Position Professor Climate Risks Module
 - Main responsibilities Cases studies and climate risks sectoral methodologies explanation. This was the last module of Climate change and Water Resources master's degree, first promotion. Contribution in the design of this master program.

- ▷ Period May 2018–Nov 2022
 - Employer **UNDP**
 - Position Environmental Specialist - Coordinator NDC-SP
 - Main responsibilities Modelling of mitigation initiatives for the Nationally Determined Contribution (NDC) of Ecuador. GHG Inventories, Climate risks sectoral methodologies, MRV design and implementation (Mitigation and Adaptation), Ecuador's Zero Carbon Program support, Private Engagement Initiative (Carbon Footprint measurement and SBTi knowledge), Workshops organization and execution with Canvas and Lean Start-Up methodologies, Implementation Plan NDC design and follow up, Developing proposals for project continuity, Climate Business Rounds organization.

- ▷ Period July 2018–Sep 2021

<ul style="list-style-type: none"> ○ Employer ○ Position ○ Main responsibilities 	<p>Escuela Politecnica Nacional (CEC) Instructor Contents design and execution of courses: Basic Statistics, Programming Applied to Statistics with R, Econometrics with R, Programming Applied with Python, Data Mining and Machine Learning with R, SparkyR</p>
<ul style="list-style-type: none"> ▷ Period ○ Employer ○ Position ○ Main responsibilities 	<p>July 2017–Nov 2020 The Army Polytechnic School Occasional Professor Subjects: Statistics and Experimental Design for Update Curricular program and complex ion test in Sustainable Agriculture and Agro-business Master</p>
<ul style="list-style-type: none"> ▷ Period ○ Employer ○ Position ○ Main responsibilities 	<p>Nov. 2017–May. 2018 SolGold PLC Environmental Specialist Environmental monitoring: vegetation, water, soil, sediments</p>
<ul style="list-style-type: none"> ▷ Period ○ Employer ○ Position ○ Main responsibilities 	<p>Sept. 2017–Jan. 2018 Pontificia Universidad Catolica del Ecuador Occasional Professor Subject: Chemistry</p>
<ul style="list-style-type: none"> ▷ Period ○ Employer ○ Position ○ Main responsibilities 	<p>Feb. 2013–May. 2017 The Polytechnic University of Madrid 21 Rios Rosas, Madrid, 28003, Spain Teaching Assistant Hydrology, Hidrogeology, Research support, Data analysis: univariate and multivariate (clustering), Regression modelling (including spatio-temporal data), Data mining, Network analysis, Spatial data analysis and Geostatistics, Text Mining, Visualization and reporting (data literacy and dashboards): ggplot2, shiny, R Markdown, D3.js with plotly, Google Analytics; Materials characterization (XRD, XRF, ICP, AAS, UV-VIS), materials leaching assays.</p>
<ul style="list-style-type: none"> ▷ Period ○ Employer 	<p>May 2007–Jan. 2013 Aurelian Ecuador S.A. (Kinross Gold Corporation) N37-29 Amazonas, Quito, 170507, Ecuador</p>
<ul style="list-style-type: none"> ▷ Project 2008 until 2013 ○ Position ○ Main responsibilities 	<p>"Fruta del Norte" Project Environmental Coordinator - Deputy Manager Environment, Health and Safety Reports to Authority, Evacuation and Contingency Plans, Monitoring and Follow-up HES Management Plans, Training; Field work, Management and analysis of geological databases (2007-2008) with ARCGIS and Mapinfo. Spatial data analysis</p>
<ul style="list-style-type: none"> ▷ May 2006–May 2007 ○ Position ○ Main responsibilities 	<p>Care International, Maquipucuna Foundation, IADB, MAGAP Individual consultant Thematic cartography (land use and land cover, natural hazards), GIS, remote sensing, spatial modelling</p>

- ▷ 2007
 - Position
 - Main responsibilities

- ▷ May 2003–May 2006
 - Position
 - Main responsibilities

- ▷ May 2002–May 2003
 - Position
 - Main responsibilities

Ecuador National Cartography Institute (IGM)

Rural cadaster Technician
Land use assessment, thematic cartography including natural hazards and risks

Pichincha Local Government, Quito

GIS Technician
GIS management and implementation; Natural hazards and risks maps: earthquakes, volcanic, inundations. Flooding simulations, watershed modelling, stakeholders mapping

Maquipucuna Foundation

Technician
Land cover and land use change in Choco-Andean Corridor with Idrisi (GEOMOD) and ESRI products

EDUCATION

- ▷ Period
 - Acquired qualifications
 - Institute
 - Principal subjects
 - Minor subjects
 - Grade

- ▷ Period
 - Acquired qualifications
 - Institute
 - Principal subjects
 - Minor subjects
 - Grade

- ▷ Period
 - Acquired qualifications
 - Institute

- ▷ Period
 - Acquired qualifications
 - Institute

- ▷ Period
 - Acquired qualifications
 - Institute

2013-2017

PhD in Research, Modelling and Analysis of Environmental Risks

The Polytechnic University of Madrid, School of Mines and Energy
Acid Rock Drainage Water Treatment with Zeolitic Tuffs, Mining, Hidrology
Geophysics, Geochemistry, Geology, GIS, Data analysis
Cum laude

2013-2014

MSc. in Environmental Risks

The Polytechnic University of Madrid, School of Mines and Energy
Contaminants partition, Environmental Risks, Data analysis, Geochemistry
Soil Contamination Treatments
Average grade 8

2010

Dipl. in Health and Safety

The San Francisco de Quito University

2004-2007

MSc. in Environmental Management

The San Francisco de Quito University

1997-2002

Bachelor of Geographic and Environmental Engineering

The Army Polytechnic School

RESEARCH

- ▷ TRAINING
 - ▷ Projects Budget Holder (FAO, 16-10-2022)
 - ▷ Environmental and Social Risks: Standards and Procedures (FAO, 15-10-2022)
 - ▷ BSAFE (FAO, 27-02-2022)
 - ▷ Long-term strategies for climate change and M3E model (Spanish Climate Change Office, Madrid, 06-11-2019)
 - ▷ Greenhouse Gas Abatement Cost Model (GACMO) (UNEP-DTU, Quito, 12-07-2018)
 - ▷ Experiential learning (UPM, Madrid, 19-04-2018)
 - ▷ XXXIX International Summer School: Earth Sciences, Environmental Geology and Geochemistry, Contamination and Soils restoration (UPM, Madrid, 19-04-2018)
 - ▷ Introduction to data analysis and Big Data (URJC, Madrid, 2016)
 - ▷ Multivariate analysis with R (UAM, Madrid, 2015)
 - ▷ 77 EAGE Conference and Exhibition, Earth Science for Energy and Environment (European Association of Geoscientists and Engineers (EAGE), Madrid, 15-06-2015)
 - ▷ I Expo-World Convention in Mining, Energy y Metallurgy (Oviedo University, 2015)
 - ▷ Geostatistics and Spatial data analysis with R (UPM Madrid, 2014)
 - ▷ GEOMOD: Land use change in Idrisi and ARCGIS (Winrock International, Quito, 15-10-2002)

PUBLICATIONS

- ▷ Publication
 - Mesa, J., Chicaiza, E., Buenano, X., et.al. (2018). *Analysis of Users and Uses of DEMs in Spain*. DOI: 10.3390/ijgi6120406, 6(12), 406. ISPRS INTERNATIONAL JOURNAL OF GEOINFORMATION
- ▷ Publication
 - Leiva, C., Araujo, N., Buenano, X. (2017). *Modelo de prediccion espacial de ondulacion geoidal, para el area urbana de Quito, utilizando tecnicas geoes-tadisticas*. DOI: <http://geoespacial.espe.edu.ec/wp-content/uploads/2017/01/Geoespacial14.1.pdf>. 14/1: 83 - 102. Revista Geoespacial

- ▷ Publication Ariza, F., Chicaiza, E., Buenano, X. (2017). *Metodos de evaluacion de la calidad posicional en Hispanoamerica, analisis de la situacion*. Revista Cartografica IPGH 94
- ▷ Publication Chicaiza, E., Leiva, C., Arranz, J.J, Buenanio, X. (2017). *Spatial uncertainty of a geoid undulation model in Guayaquil, Ecuador*. Open Geosciences.
- ▷ Publication Buenanio, X., et.al. (2017). *Zeolitic tuffs for acid mine drainage (AMD) treatment in Ecuador: breakthrough curves for Mn²⁺, Cd²⁺, Cr³⁺, Zn²⁺, and Al³⁺*. Environmental Science and Pollution Research, 1-13.
- ▷ Publication Mesa J, Chicaiza E, Buenanio X, et.al. *Analisis de los usuarios y usos de los MDE en Espania*. Geofocus, N.17, 2016
- ▷ Publication Chicaiza E, Buenanio X. *Modelling uncertainty using geostatistics, a case study in Ecuador* Conference Proceedings, Spatial Accuracy 2016, Montpellier, France. ISBN: 978-2-9105-4510-5
- ▷ Publication Buenanio X, et.al. *Guidelines of Natural Zeolites Characterization for Acid Mine Drainage Treatment. Case Study Guayaquil, Ecuador* Conference Proceedings, SPAINMinergy, Gijon, 2015
- ▷ Publication Buenanio X, Chicaiza E. *Prediction with Geostatistics (in free software) of Aluminum soil concentrations in a forest in south-east of Ecuador* 77th Conference Proceedings, European Association of Geoscientists and Engineers, Madrid, 2015

LANGUAGES

FIRST LANGUAGE
OTHER LANGUAGES

Spanish
English – Reading: High, Writing: High, Speaking: High