Emma Garcia Boadas

europass

Date of birth: 31/05/1994 | **Nationality:** Spanish | **Gender:** Female | (+34) 679151182 | egarcibo14@gmail.com |

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PERSONAL STATEMENT

Personal Skills

Passionate, creative, enthusiastic, and hard-working Geologist. Interested in the understanding of the earth's surface and its dynamics. Interested in both the academic and the private sectors. With active involvement in extra-curricular activities and volunteering. Previous academic and volunteer experience has enhanced personal and interpersonal skills such as personal growth, commitment, constancy, creativity, leadership, and communication. Possesses natural teamwork qualities facilitating smooth and strong cooperation with the members of any working environment.

WORK EXPERIENCE

07/2020 – 11/2021 – Barcelona, Spain
JUNIOR INSAR ENGINEER, REMOTE SENSING GEOLOGIST – SIXENSE GROUP

Interpretation of InSAR data and optical images in operational projects for clients in the infrastructure and mining sector. SAR Interferometry (PSI) processing with ATLAS software in monitoring projects. Multi-sensor (Sentinel-1 A/B, TerraSAR-X) processing for land surface displacement monitoring. Reporting of operational projects for customers in infrastructure and mining sectors. Postprocessing of InSAR data results.

01/2020 – 07/2020 – Girona, Spain
GEOLOGIST – GEOSERVEI PROJECTES I GESTIÓ AMBIENTAL S L

Hydrogeology and edaphology mapping, GIS consultant, geotechnical projects.

06/2019 – 08/2019 – Barcelona, Spain
TECHNICAL REMOTE SENSING GEOLOGIST – LITHICA SCCL/ CONSEJO SUPERIOR DE INVESTIGACIÓNES CIENTIFICAS (CSIC)

GEO3BCN Geociencias Barcelona-CSIC
Field exploration in the mining sector. Develop ore estimation with portable laboratory cameras, images (optic, hyperspectral).

10/2017 – 05/2019 – Barcelona, Spain
TECHNICAL REMOTE SENSING GEOLOGIST – DARES TECHNOLOGY

Optical image processing (Sentinel-2, ASTER, Landsat-8) and land mapping. Interpretation of optical images. Interpretation of the combination of radar and optical results in operational projects for clients in the mining sector. SAR Interferometry (PSI) processing with (CPT) software. Multi-sensor (Sentinel-1 A/B, ERS/ENVISAT ASAR, TerraSAR-X, Radarsat-2.) processing for land surface displacement monitoring. Management of operational projects for customers in the oil & gas, mining, and infrastructure sectors. Post-processing and interpretation of InSAR data results.

07/2017 – 09/2017 – Barcelona, Spain
INTERNSHIP – DARES TECHNOLOGY

Collaboration in reports of ground deformation, interpretation of the ground deformation, and adding earth sciences value (geological maps, climate data, pluviometry data, and optical images interpretation).

10/2016 – 07/2017 – Barcelona, Spain
INTERNSHIP – CONSEJO SUPERIOR DE INVESTIGACIÓNES CIENTIFICAS (CSIC)

GEO3BCN Geociencias Barcelona-CSIC
Department: Environmental Geology and Geohazards
Research Group: Environmental Changes in the Geological Record
Practice, and elaboration of the final degree project. Related to a multidisciplinary project in Deception Iceland, the final project was to integrate optical multispectral data and sampling data gathered on the island.

06/2016 – 08/2016 – Reykjavík, Iceland
UNIVERSITY RESEARCH ASSISTANT – UNIVERSITY OF ICELAND - HÁSKÓLI ÍSLANDS

Research Group: Volcanology
Faculty of Earth Science
Technical collaboration in remote sensing research. Working with the GPS points position taken on the monitoring of the fissural lava eruption of the Bárðarbunga which took place in 2014.

07/2015 – 08/2015 – Barcelona, Spain
INTERSHIP – LITOCLEAN

Technical collaboration on reports of water soil remediation.

EDUCATION AND TRAINING

12/2019
CAMBRIDGE ENGLISH LEVEL 1 CERTIFICATE IN ESOL INTERNATIONAL (FIRST) LEVEL B2 – Cambridge Assessment English

09/2012 – 08/2017 – Barcelona, Spain
GEOLOGIST BACHELOR'S DEGREE – Universitat de Barcelona

Degree in Geologi interested on Remote Sensing techniques.

2017 – Grenoble, France
COURSE IN ORFEO TOOLBOX (OTB) – Centre National d'Etudes Spatiales (CNES)

14h

2015 – 2016 – Reykjavik, Iceland
ERASMUS – Háskóli Íslands

Subjects:
Glacial geology
Magmas in the crust
Application of Remote Sensing in Earth Sciences
Volcanology

2016 – Reykjavik, Iceland
COURSE IN DRONE - DJI PHANTOM 3 PROFESSIONAL – University of Iceland

14h

2011 – Santander, Spain
PARTICIPANT ON OLYMPICS STATEWIDE GEOLOGY – AEPECT, Asociación Española para la Enseñanza de las Ciencias de la Tierra

Winning a scholarship to attend the first course of geology at the University of Barcelona.

PUBLICATIONS

'Machine Learning For Mineral Identification And Ore Estimation From Hyperspectral Imagery In Tin–Tungsten Deposits: Simulation Under Indoor Conditions'

2021
Lobo, A.; Garcia, E.; Barroso, G.; Martí, D.; Fernandez-Turiel, J.-L.; Ibáñez-Insa, J. Machine Learning for Mineral Identification and Ore Estimation from Hyperspectral Imagery in Tin–Tungsten Deposits: Simulation under Indoor Conditions. Remote Sens. 2021, 13, 3258. https://doi.org/10.3390/rs13163258

CONFERENCES AND SEMINARS

2018 – EGU General Assembly
'ASTER satellite imagery for geological exploration in Deception Island (Antarctica)'

Co-author.

2018 – IGARS
'Towards Unsupervised Flood mapping generation using automatic thresholding and classification approaches.'

Co-author.

2018 – EGU General Assembly
'SINCOHMAP Project: Land-cover ans vegetation mapping using very dense multi-temporal InSAR data.'

Oral communicator.

LANGUAGE SKILLS

Mother tongue(s):   **CATALAN** | **SPANISH**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C1	C1	C1	C1	B2
FRENCH	A2	A1	A1	A1	A1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

DIGITAL SKILLS

Basic: AutoCAD, Ineskipe | Basic: Global mapper, Georient | Basic: Microsoft Word, Excel, Powerpoint | Basic: R studio | Basic: Surfer, GeoDa, Sterionet | Basic: Microstation, Petrel E&P, Kingdom Suite | Basic: Autodesk 123D Catch | Advanced: Qgis, ArcGIS, ENVI, Orfeo ToolBox (OTB), EnMAP, SNAP | Advanced: Google Earth | GIT Hub | Microsoft Office Word Power Point Excel

SKILLS, INTERESTS & EXTRACURRICULAR ACTIVITIES

Driving license (B1)

Individual Interests

Sports and outdoor enthusiast, active alpinist, and climber. Spanish Olympic shooting champion at junior level. Dance lover with the Intermediate level of ballet at The Royal Academy of Dance. Avid traveler and cooker. Environmental Activism.

2019 – CURRENT
Volunteer in mountaineering club CEC Centre Excurcionista de Catalunya

Organizing activities through nature. Motivating youth to involve themselves in natural environments and spread consciousness about anthropogenic effects in the mountain.

2014
Recreational leader certificate, Girona

2013 – 2014
Scout leader at Agrupament Escolta i Guia Jaume Ortiz, Badalona

2009 – 2013
Scout leader at Agrupament Escolta Maristes Girona, Girona

References

Agustin Lobo (Scientist - Geociències Barcelona (GEO3BCN - CSIC)) Agustin.Lobo@geo3bcn.csic.es, Javier Duro (CEO - DARES TECNOLOGY) jduro@dares.tech, David Martí (Co-founder Lithica) dmarti@lithica.net, Nuria Devanthery (InSAR Technical Manager - Sixense Satellite) nuria.devantheryarasa@sixense-group.com.