

Correa Sabrina

Cabo Frio/RJ, Brazil

+55 31 996722474 | paeslemesa@gmail.com | <http://lattes.cnpq.br/5037279609112547> | github.com/paeslemesa | <https://www.linkedin.com/in/sabrina-correa-a14064a7/>

Personal Profile

A researcher with main focus on studying and applying pattern recognition (machine and deep learning) algorithms in optical Remote Sensing imagery using preferably open-source softwares. They also have experience in processing 3D terrestrial laser scanner point-cloud. They are eager to learn and keep learning. Also, they believe that knowledge when not shared is wasted. They intend to apply everything they learn to the society growth.

Education

Brazil National Institute for Space Research (INPE)

Sao Jose dos Campos/SP, Brazil

MSc in Remote Sensing

Feb 2019 - Dec 2021

- **Title:** Reference sample selection for supervised classification of a lower resolution image assisted by a higher resolution image.
- **Supervisors:** Dr Luciano Vieira Dutra (INPE), Dr Derek D'Arcy Lichti (University of Calgary, Canada)
- **Description:** Developed an open-source approach in Python 3.7 to select reference data for supervised image classification based on the quality of input data. Studied the effect of the reference data quality for image validation assuming qualitative and quantitative factors.
- **Courses:** Physical Principles of Remote Sensing, Statistics for Remote Sensing, Pattern Recognition, Digital Image Processing, Advanced Digital Image Processing, RADAR Processing
- **Funding:** Brazil National Council for Scientific and Technological Development (CNPq)

Federal University of Vicosa (UFV)

Vicosa/MG, Brazil

B.S.E. in Surveying and GIS Science

Feb 2012 - Jan 2019

Curtin University of Technology

Perth/WA, Australia

Exchange Program in Surveying

Feb 2014 - Dec 2015

- Selected from Brazil's government for Science Without Borders program
- **Funding:** Brazil National Council for Scientific and Technological Development (CNPq)

Federal Institute for Technological Education of Espirito Santo

Vitoria/ES, Brazil

High School integrated with Technical Degree in Road Construction

Apr 2007 - Dec 2010

- **Courses:** Land surveying, GIS, Programming

Work Experience

Bracell

Lençois Paulista/SP, Brazil

Geoprocessing Analyst II

Aug 2022 - May 2023

- Develops a Deep Learning model based on YOLOv8 instance segmentation for young canopy recognition from UAV imagery.
- Is automatic the algorithm to be operational and user friendly.
- At the moment is boosting the company capacity for forestry quality control for young forest monitoring.
- Works with a multidisciplinary team (operational and research) to validate the project in a large company scale.
- Field trips to eucalyptus forests for validating ground truth data.
- **Technical Skills:** Python with Geopandas, Pandas, Rasterio, osGEO, PyTorch, NumPy, Scikit-learn, Pathlib; Git; QGIS; eCognition
- **Soft Skills:** Teamwork, Time Management, Organisation skills, Problem Solving, Communication, Working Under Pressure, Presentation skills.

Corcovado Geosub

Macaé/RJ, Brazil

Data Processor II

Feb 2022 - Aug 2022

- Underwater rigid pipeline inspection for Petrobras using multibeam echosounder (MBES) data.
- Processed underwater sound profile, quality assessment for offshore point cloud.
- Created map layouts and maps for rigid pipelines considering events such as freespans, burials and marine fouling.
- Cleaned and adjusted MBES point clouds.
- **Technical Skills:** EIVA NaviSCAN, EIVA NaviEDIT, QGIS, MS Excell
- **Soft Skills:** Time Management, Organisation skills, Communication, Working Under Pressure.

NumberOne Idiomas

Vicosa/MG, Brazil

English as Second Language Instructor

Aug 2015 - Aug 2018

- Taught English for ESL at basic and intermediate levels.
- **Technical Skills:** English.
- **Soft Skills:** Communication, Presentation Skills, Leadership Skills.

University Projects

Road map basis for a municipality of Minas Geraes

Vicosa/MG, Brazil

Federal University of Vicosa (UFV)

Jul 2018 - Sep 2018

- Developed a road map of a municipality of Minas Gerais according to Brazil National Infrastructure do Geospatial Data (INDE).
- **Technical Skills:** ArcGIS, INDE.
- **Soft Skills:** Time Management, Hardworking.

Quality Assessment of a Terrestrial Laser Scanner

Vicosa/MG, Brazil

Federal University of Vicosa (UFV)

Jul 2016 - Aug 2018

- Studied the registering process of a terrestrial laser scanner (TLS) using least-square adjustment.
- Tested the outcomes of observing different target materials with different temperatures.
- **Technical Skills:** Matlab, Microsoft Office Word, Terrestrial Laser Scanner, Point Cloud Modelling.
- **Soft Skills:** Logical Thinking, Project Management, Academic Writing, Presentation Skills.

Scientific Initiation - Point-based self calibration of a Terrestrial Laser Scanner

Vicosa/MG, Brazil

Federal University of Vicosa (UFV)

Jul 2018 - Dec 2018

- Studied mathematical models for geometric transformations to determine the systematic errors of a TLS.
- **Technical Skills:** Matlab, Microsoft Office Word, Terrestrial Laser Scanner, Point Cloud Modelling.
- **Soft Skills:** Logical Thinking, Project Management, Academic Writing, Presentation Skills.
- **Funding:** Brazil National Council for Scientific and Technological Development (CNPq)

2014 Survey Expedition

WA, Australia

Curtin University of Technology

Jul 2014 - Jul 2014

- 14 days field trip to Western Australia outback to aid student projects for Cadastre, Geodesy and Photogrammetry.
- **Supervisors:** Dr Petra Helmholz, Dr David Belton.
- **Technical Skills:** RTK GNSS, TLS, Short range photogrammetry, Camping.
- **Soft Skills:** Time management, Communication Skills, Self discipline.

Skills

Programming	Python (Geopandas, Rasterio, Numpy, PyTorch, Pathlib, Matplotlib, Scipy, Scikit-Learn), R(Terra, RGDAL)
GIS and CAD Softwares	QGIS, ArcGIS, eCognition, TerraView, AutoCAD.
Surveying	Cyclone (Leica), RiScan PRO (Riegl), EIVA NaviModel, EIVA NaviEdit.
Miscellaneous	Windows, Linux Ubuntu, \LaTeX (Overleaf), Microsoft Office, Git.
Soft Skills	Problem-solving, Communication, Presentation Skills, Hardworking, Critical Thinking, Logical Thinking, Report Writing.

Publications

JOURNAL ARTICLES

Detecção de Cicatrizes de Movimentos de Massa utilizando Sensoriamento Remoto e Técnicas de Reconhecimento de Padrões: Comparação entre os Classificadores Redes Neurais Artificiais, Máxima Verossimilhança Gaussiana, Random Forest e Support Vector Machine
Tatiana Dias Tardelli Uehara, Sabrina Paes Leme Passos Corrêa, Renata Pacheco Quevedo, Thales Sehn Körting, Luciano Vieira Dutra, Camilo Daleles Rennó
Revista Brasileira de Cartografia 72.4 (Nov. 2020) pp. 665–680. 2020

CONFERENCE PROCEEDINGS

Autocalibração de um sistema laser scanner terrestre: uma abordagem conceitual (Sao Jose dos Cammpos/SP, Brazil). XX GEOINFO, 2019, pp. 200–2005.
Análise dos Ruidos Provenientes da variação de temperatura em leituras com laser scanner Riegl VZ-400 (Santos/SP, Brazil). ANAIS DO XIX SIMPÓSIO BRASILEIRO DE SENSORIAMENTO REMOTO, 2019.

Languages

English	Academic proficiency - Curtin University Bridging Course (A+)
Portuguese	Native proficiency
Spanish, French	Basic proficiency

References available upon request.