Thiago Nascimento

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ABOUT ME

I am a civil engineer with a Master's degree in Hydro Science and Engineering held by TU Dresden, The Netherlands. Currently, I am a PhD student at Eawag, Switzerland. Passionate about Water Resources, I have worked in the field for more than three years solving a variety of environmental problems using programming (Python and MATLAB), remote sensing and hydrological modeling.

WORK EXPERIENCE

Doctoral Researcher

Eawag/UZH [Mar 2023 – Current]
Place: Zurich, Switzerland
Doctoral researcher at the Hydrological Modelling Group at Siam, Eawag. Currently involved in a project with the goal of provide a better understanding about why are some river catchments more sensitive to environmental change than others.
Contact: Dr. Fabrizio Fenicia (fabrizio.fenicia@eawag.ch).

Research Assistant at University

Instituto Superior Técnico [Oct 2022 – Current]
Place: Lisbon, Portugal
Investigation of the hydrological cycle vulnerability of watersheds and aquifer within the Iberian Peninsula to climate change and human-driven activities.
Contact: Dr. Maria Teresa Condesso de Melo (teresa.melo@tecnico.ulisboa.pt).

Intern

Paraiba Water and Sewage Company [Jun 2019 – Apr 2020]
Address: 58088 770 (Brazil) - http://www.cagepa.pb.gov.br/
Place: Joao Pessoa, Brazil

(a) Update projects of reservoirs and supply networks using GIS and AutoCAD;
(b) Field work for *in situ* water supply data collection;
(c) Organization of the water supply database from the company using programing.

Undergraduate research fellow

Federal University of Paraiba [Jul 2018 – Apr 2020]
Place: Joao Pessoa, Brazil

(a) Investigation of the impacts of changes in land use and occupation on the water balance of selected watersheds;
(b) Analysis of drought incidence and trends in several watersheds worldwide;
(c) Investigation of the applicability of Google Earth Engine and other remote sensing techniques for monitoring deforestation and shoreline changes;
(d) Application of artificial neural networks (ANNs) in predicting and modeling hydrological time series.

Contact: Dr. Celso A. G. Santos (celso@ct.ufpb.br).

EDUCATION AND TRAINING

Master in Hydro Science and Engineering

Technische Universitat Dresden [Sep 2020 – Sep 2022]
Address: Dresden (Germany)
https://www.groundwatermaster.eu/
Fields of study: Integrated Water Resources Management, Hydrogeology, Climate Systems and Modeling, Remote Sensing, Applied Groundwater Modelling, Groundwater Contamination and Remediation; Managed Aquifer Recharge
Thesis: Impacts of large-scale irrigation on the hydrological cycle: The case study of Alqueva irrigation scheme and the Gabros de Beja aquifer
honors: With distinction

Master within the framework in Groundwater and Global Change: Impacts and Adaptation held in 3 universities: IHE Delft (The Netherlands), TU Dresden (Germany) and IST (Portugal).

Bachelor in Civil Engineering
Federal University of Paraiba [Jul 2015 – Apr 2020]
Address: João Pessoa (Brazil)
https://www.ufpb.br/

LANGUAGE SKILLS

Mother tongue: **Portuguese**
Other languages: **English** (Advanced), **Spanish** (Intermediate), **French** (Intermediate) and **German** (Basic).

DIGITAL SKILLS

GIS
ArcGIS / QGIS / Google Earth Engine (GEE)

Programming languages
Python / MATLAB

Engineering
Autodesk Autocad / Modflow / SWAT+ / MOHID

Data analysis and statistics
Machine learning / Global datasets / Trend analysis / Cluster analysis

MAIN PUBLICATIONS

Analysis of forest cover changes and trends in the Brazilian semiarid region between 2000 and 2018.
https://doi.org/10.1007/s12665-020-09158-1
Environmental Earth Sciences [2020]

Geospatial drought severity analysis based on PERSIANN-CDR-estimated rainfall data for Odisha state in India (1983-2018).
https://doi.org/10.1016/j.scitotenv.2020.141258
Science of the total environment [2021]

Analysis of long- and short-term shoreline change dynamics: A study case of João Pessoa city in Brazil.
https://doi.org/10.1016/j.scitotenv.2020.144889
Science of the total environment [2021]

Monthly Streamflow Modeling Based on Self-Organizing Maps and Satellite-Estimated Rainfall Data
https://doi.org/10.1007/s11269-022-03147-8
Water Resources Management [2022]