

THIAGO NASCIMENTO

P: (+41) 795 206 775 | thiagovmdon@gmail.com | <https://github.com/thiagovmdon> | Google Scholar: [Thiago-Nascimento](#)
Zürichstrasse 63, 8600, Dübendorf, Switzerland

SUMMARY

Doctoral researcher at Eawag and the University of Zurich, with an international research profile across Europe and Brazil. Specialized in large-sample hydrology, geospatial data, and streamflow prediction. Experienced in developing datasets, reproducible workflows, and open-source software.

KEY ACHIEVEMENTS

- Established the first homogenous hydrological dataset for Europe supporting flood forecasting and water management.
- Authored 15+ peer-reviewed publications in high-impact journals (e.g., Nature Portfolio). Full list available on [Google Scholar](#).

WORK EXPERIENCE

EAWAG

Zurich, Switzerland

Doctoral Researcher

03/2023 – Present

- Lead developer of EStreams (www.estreams.eawag.ch), the largest hydro-climatic dataset in Europe.
- Collaborated internationally, including with TU Delft and a researcher from Google Research, on large-scale hydrological data infrastructure (e.g., [RivRetrieve-Python](#)) and predictive modeling.
- Developed reproducible Python workflows and automated data collection, processing, validation, and uncertainty analysis across continental datasets.
- Advanced streamflow prediction under climate change using process-based hydrological models and machine learning.
- Quantified input-data uncertainty effects on model performance, improving model robustness by up to 70%.

UNIVERSITY OF LISBON

Lisbon, Portugal

Research Assistant

10/2022 – 03/2023

- Investigated climate and land-use impacts on hydrological systems using remote sensing and GIS tools.
- Built and calibrated process-based hydrological models (e.g., SWAT) to simulate streamflow in arid and semi-arid regions.
- Conducted quantitative analyses of hydrological vulnerability to climate-risk in the Iberian Peninsula.

FEDERAL UNIVERSITY OF PARAIBA

Joao Pessoa, Brazil

Undergraduate Research Fellow

07/2018 – 04/2020

- Used remote sensing and programming tools for the analysis of deforestation, droughts, and coastal shoreline dynamics.
- Findings published as articles and technical reports on spatial risk and environmental change.

LEADERSHIP AND PROJECTS

Developer: [EStreams](#) and [CAMELS-CH-Chem](#), two pioneer continental scale hydrological datasets for Europe. 2024, 2025

Co-developer: [RivRetrieve-Python](#), an innovative open-source package for global river data via web-scraping and APIs. 2025 – Present

Teaching Assistant: Eawag Summer School in Bayesian Methods & University of Zurich (2 editions, 30+ students) 2024, 2025

Co-Supervisor: Two MSc students hosted at Eawag 2023, 2024

EDUCATION

UNIVERSITY OF ZURICH & EAWAG

Zurich, Switzerland

PhD in Hydrology

03/2023 – Present

JOINT DEGREE: TU DRESDEN, IHE DELFT, UNIVERSITY OF LISBON

Germany, Netherlands and Portugal

MSc in Hydro Science and Engineering (graduated with distinction)

Sep 2020 – Sep 2022

FEDERAL UNIVERSITY OF PARAIBA

Joao Pessoa, Brazil

MSc in Water Resources

04/2020 – 12/2021

FEDERAL UNIVERSITY OF PARAIBA

Pessoa, Brazil

BSc in Civil Engineering

01/2016 – 04/2020

TECHNICAL SKILLS

Programming & Data Science: Python (Pandas, NumPy, SciPy, xarray, GeoPandas, scikit-learn), TensorFlow, R, MATLAB

Modeling & Analytics: AI (machine learning and LLMs for predictions), uncertainty, statistical inference, HPC, automation

GIS & Geospatial Analytics: ArcGIS, QGIS, Google Earth Engine; geospatial databases, NetCDF, GeoTIFF, GeoJSON, Shapefiles

Collaboration & Reproducibility: Git, GitHub, Jupyter Notebooks, Conda environments

Operating Environments: Linux, Windows, macOS/iOS, MS 365

Languages: Portuguese (native); English (advanced), Spanish and German (intermediate) and French (basic)

REFERENCES

- Dr. Fabrizio Fenicia: Eawag, Switzerland. **PhD main supervisor**. Contact: fabrizio.fenicia@eawag.ch
- Prof. Jan Seibert: University of Zurich, Switzerland. **PhD supervisor**. Contact: jan.seibert@geo.uzh.ch
- Dr. Frederik Kratzert: Google Research, Austria. **Collaborator**. Contact: kratzert@google.com