

# ETHEL OGALLO

Vannes, France

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[LinkedIn](#) | [Github](#) | [ePortfolio](#)

## SUMMARY

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MSc student in the Copernicus Master in Digital Earth programme (Erasmus Mundus), specializing in GeoData Science. Interested in GeoAI and AI for Earth Observation (AI4EO), with a focus on environmental monitoring. Experienced in automated workflows for processing and analyzing Earth observation data using Python, R and DL/ML .

## EDUCATION

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### Copernicus Master in Digital Earth Oct 2024 - Present

University of South Brittany , France & Paris Lodron University Salzburg, Austria

*Specialization: GeoData Science*

### Bachelor of Applied Science in Geoinformatics

The Technical University of Kenya, Kenya

## PROFESSIONAL EXPERIENCE

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### Remote Sensing Intern July-August 2024

The Center for Remote Sensing of Land Surfaces (ZFL); Bonn, Germany

- Developed machine learning workflow for wetland delineation and classification of Lake Baringo wetland in Kenya under the WetlandHealth4UNgoals project. [[GitHub Repository](#)]

### Data Science Research Assistant Feb 2024 - Sept 2024

CEMA Africa; Nairobi, Kenya

- Modeled healthcare accessibility by estimating catchment areas and travel time to facilities, using geostatistical techniques in R.
- Developed an interactive [dashboard](#) visualizing health facility accessibility in Kenya to support health planning.

### Data Science Intern Aug 2023 - Jan 2024

CEMA Africa; Nairobi, Kenya

- Analyzed spatio-temporal patterns of cholera outbreak focusing on socio-demographic and environmental factors.
- Mapped cholera hotspots at the ward level, offering actionable insights for targeted interventions and improved disease control strategies.

### Environmental Engineer Nov 2020 – Dec 2022

Centunion East Africa; Nairobi, Kenya

- Developed, implemented, and maintained a robust environmental management system (EMS), conducting 4 internal audits to ensure compliance with ISO standards and local regulations.

### GIS Research Assistant Mar 2020 - Aug 2020

Oakar Services; Nairobi, Kenya

- Collected and managed spatial and non-spatial data for a farmer registration project in Kiambu County, using mobile client configuration tools.

## SCIENTIFIC ACTIVITIES & PROJECTS

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- **ICPRS (Feb 2025):** Participated in the ICPR 2026 competition on Kaggle, Beyond Visible Spectrum: AI for Agriculture; awarded 3rd place on the second task “Boosting automatic crop diseases classification using Sentinel satellite data and self-supervised learning”
- **ASPRS 2025 Annual Conference | Washington D.C. (Virtual) (Oct 2025):** Presented the pysarflow tool, demonstrating Python-based automation for SAR data workflows to an international audience.
- **AI4EO Symposium | Rennes, France (11–12 Sept 2025):** Participated in technical sessions on the integration of Artificial Intelligence and Earth Observation
- **MLESM Hackathon | Bonn, Germany (Onsite) (27–29 Aug 2025):** Fine-tuned machine learning models for Earth system modeling; awarded 1st place for innovative geospatial solutions.
- **[PySARFlow](#) (2024):** An open source python library for preprocessing Sentinel-1 SAR.
- **Next City Summer School | Benicàssim, Spain (Onsite) (June 2024):** Attended a program on building smart and sustainable cities through hands-on exploration of Digital Twin technologies.
- **Quantifying Vulnerability to Natural Hazards: BIP | University of Bucharest, Romania (Hybrid) (Mar -Apr 2024):** Completed a Blended Intensive Programme focused on using multi-criteria decision analysis to quantify socio-environmental vulnerability.
- **Digital Earth Africa (2024):** Contributed Python workflows for analyzing wetland dynamics using large-scale EO datasets and the Open Data Cube.

## SKILLS

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**Programming:** Python , R , SQL.

**Geospatial:** ArcGIS Pro, QGIS, Geoserver, Google Earth Engine, SNAP.

**Cloud & DevOps:** AWS, Git, GitHub.

**Languages:** English , Swahili (Native).