

Konstantin Engelmayer

Curriculum Vitae

Personal Details

Birth 2000/08/18, Köln

Status Student

Languages German (Native), English (C1)

Education

2023 - now Master of Science, Physical Geography, *Philipps University Marburg*, Specialization: Environmental Informatics and Climate Impact Research

Current NC (GPA): 0.83

2022 Bachelor thesis, Soil Respiration in Forests of Different Land Use Intensity Project BiCO2, in cooperation with Nabu Münsterland and the Forest and Wood Office NRW

2019 - 2022 Bachelor of Science, Landscape Ecology, *University Münster* NC (GPA): 1.4

Work Experience

2024 - now **Student Assistant**, Philipps University Marburg — Laboratory for Climatology and Remote Sensing

 $\overline{\text{MW3}}$ project: Investigation of drought reactions of forests using remote sensing techniques

2024 **Student Assistant**, Philipps University Marburg — Plant Ecology and Geobotany, 4 months

FORGENIUS project: developing methods to improve the reproducibility of *Pinus pinaster* cone classification based on high resolution raster data

- 2024 **Student Assistant**, Philipps University Marburg Environmental Informatics, 6 months
 - Tutor in various R programming courses, focusing on spatial data analysis and upscaling / Created and improved HTML-based learning environments for students
- 2023 **GIS Developer**, *Hydrotec Aachen*, 4 months
 - Development of RShiny Websites for hydrographic plot creation / Risk water verification in NRW, optimized river gauge locations, and analyzed flood hazards using damage data and heavy rainfall information.
- 2023 GIS Developer Intern, Hydrotec Aachen, 3 months
 - Programming of R and Python tools for automation in heavy rainfall simulations / extreme rainfall modeling using HydroAS
- 2021 2022 **Student Assistant**, University Münster Ecohydrology & Biogeochemistry / Biodiversity and Ecosystem Research, 6 months
 Supervision of the laboratory internship/ field and laboratory work

Technical Experience

- Programming: Experienced in R and Python for spatial analyses and data processing.
- OR Packages: terra, sf, caret, cast.
- o Python Packages: xarray, rasterio, geopandas, gdal, scikit-learn.
- API Integrations: Google Earth Code Engine, Microsoft Planetary Computer, and STAC.
- Web Development: Building and deploying HTML websites via GitHub.
- O Documentation: R Markdown, Markdown.
- O Version Control: GitHub.
- o GIS Software: QGIS, ArcGIS Pro, ArcGIS Online.
- Other Software: Microsoft Office (Word, Excel, PowerPoint), Overleaf (LaTeX), ENVI-met.

For an extended version of my CV and additional project details, click here.