

My data science internship with the openwashdata team

openwashdata.

Insights from Margaux Götschmann

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In the early months of 2024, I joined the openwashdata team to get hands-on experience with real-world data, develop new skills such as working with Quarto, and learn more about research in the Water, Sanitation, and Hygiene (WASH) sector.

I arrived at the [Global Health Engineering (GHE) group]](<https://ghe.ethz.ch/>) with very little knowledge about WASH but high motivation to make use of my data science skills to solve real-world problems. With a background in mathematics, I was able to develop R data packages, review and grade projects for the [‘data science for openwashdata’ course](#), and assist in the development and testing of a new R package called [washr](#), which supports the development of R data packages throughout the openwashdata organization. These tasks involved data processing and analysis, effective communication, collaboration with WASH enthusiasts, critical thinking, and a strong knowledge of R.

Additionally, I completed various tasks involving the use of Quarto for publishing, as well as the platform GitHub for reviewing newsletters, posting course modules, and writing blog articles. I also collected data on Open Government Data platforms that may be used for future research. A significant part of my internship was dedicated to following the [‘Research Beyond the Lab: Open Science and Research Methods for a Global Engineer’](#) course taught by Prof. Tilley and Lars Schöbitz at ETH Zürich. This course provided me with both technical and non-technical knowledge, focusing on using the R tidyverse packages for data analysis, reproducible research, and communication, and Quarto for producing scholarly documents with citations, footnotes, cross-references, figures, and tables. Other learning objectives included understanding the main challenges associated with managing different types of waste and how these challenges differ between Europe and Africa. The course concluded with a practical project and a computer-based exam.

Apart from work, I got the chance to meet wonderful people at the Global Health Engineering (GHE) group. The atmosphere in the office was always very enjoyable, everyone welcomed me warmly, and the group cohesion was excellent. The work-life balance was also nice, and we spent time together outside of work, which I enjoyed a lot!

Overall, my time with openwashdata taught me the importance of making data accessible, collaborating effectively, and being determined to advance research, especially in the WASH sector. I had a great first work experience and could not be more grateful!