

**Mathias Schilling**

Algorithm Specialist and Data Analyst,
Metrohm AG

Educational Background

Bachelor in Chemistry (ZHAW),
Baccalaureate

Studies

Master in Life Sciences,
Chemistry for the Life Sciences

Master in Life Sciences, Chemistry for the Life Sciences

«I appreciate the diversity of tasks and the positive work environment in an agile and interdisciplinary team»

After completing your Bachelor's degree in Chemistry, you decided to pursue a Master's degree in Life Sciences. What were your reasons for this?

The Master's programme allowed me to not only build upon my foundational knowledge but also to specialise in specific areas. Additionally, I had the opportunity to broaden my range of general knowledge.

You studied part-time. What does that mean exactly?

During my Master's degree, I was employed as a research assistant at the ICBT, where I contributed to the research being done by the Physical Chemistry Group while also working on my Master's thesis.

Where are you currently employed?

Since 2016, I have been with Metrohm AG in Herisau, a global company. At our headquarters, we develop, manufacture, and distribute chemical analysis instruments, such as ion chromatographs, titrators, and NIR spectrometers.

Can you describe your role and responsibilities?

In April 2022, after approximately six years in spectroscopy system development, I transitioned to a new role as an Algorithm Specialist and Data Analyst. My duties now include developing and testing algorithms for our firmware and software, analysing big data, and creating predictive models. I work with Matlab, C++, Python, and R.

What aspects of your job do you particularly enjoy?

I appreciate the diversity of tasks and the posi-

tive work environment in an agile and interdisciplinary team.

Which skills and knowledge from your Master's studies are most valuable to you today?

I particularly value the soft skills that I acquired in courses like Knowledge and Innovation Management and Project Management. I also use the Matlab programming skills that I developed during my Bachelor's and Master's theses, along with my knowledge of chemometrics and statistics, on a daily basis.

Have you pursued further education since your Master's degree?

In addition to internal training at Metrohm AG in areas like requirements engineering and testing, I will be completing a MAS in Data Science at the ZHAW in the summer of 2024. The skills that I've acquired in Machine Learning, Retrieval Augmented Generation (RAG), and remaining useful lifetime estimation are already proving useful.

Would you choose to study Chemistry again if given the choice?

Absolutely, I would definitely choose to study Chemistry again. Even though I no longer work directly in a lab, my studies have decisively shaped my analytical thinking and problem-solving skills.

Thank you for sharing your experiences with us!**Master in Life Sciences**

In Life Sciences, competencies in Chemistry, Biochemistry, (Bio-)Analytics, Green Chemistry, Material Sciences, and Nanotechnology are in demand. Specialists in these areas are highly valued for their expertise.



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