

Swisens AG, Meierhofstrasse 5a, CH-6032 Emmen

**Position: Machine Learning Specialist**

## **Machine Learning Specialist (100%)**

Swisens, a spin-off of the Lucerne University of Applied Sciences and Arts (HSLU) founded in 2016, develops and produces cutting-edge aerosol measurement systems that are designed to make the microcosmos of aerosols more visible in real time. Our focus is currently on pollen and spores, but we have ambitious plans to expand our technology to measure all types of air-borne particles. We use artificial intelligence to identify these particles based on the measurement data. Our system, for example, provides concentration values for specific types of pollen, which is achieved through the use of advanced classification algorithms. We have partnered with leading research organizations such as MeteoSwiss, Finnish Meteorological Institute, Vienna University, the Federal Institute of Metrology (METAS) and Manchester University, which have helped us to develop solutions that improve productivity, increase process safety and provide new insights for our customers to add financial or scientific value. At Swisens, we are proud to have measurement systems installed in many countries across Europe, Asia, and Australia and look forward to continuing our work with our valued partners and customers.

### **Your Role**

As our machine-learning specialist, you take ownership of and drive our efforts in relation to the classification of airborne particles. The main focus areas are improving our existing classification pipeline and develop a new geo-spatial forecasting model.

#### **Improve Classification and Forecasting Algorithms**

- You identify and quantify performance gaps in our current classification pipeline
- You improve the existing particle classification model
- You develop geo-spatial forecasting models for particle concentrations
- You work closely with research institutes and partners to collaborate on model improvements

#### **Publications & Posters**

- You contribute to publications on machine-learning-related segments
- You cooperate with the application specialist to create posters for conferences

#### **ML Operations**

- You set up and develop the environment necessary to train models efficiently
- You develop a deployment pipeline together with the Software Engineers

#### **Develop Data Analysis Toolkit**

- You contribute to our custom data analysis toolkit

#### **Customer Support**

- Adaptation Project Coordination and Model Retraining
- You work closely with customers to customize and improve the existing algorithm for new environments

**What we look for**

To fill this role, we are looking for someone who:

- has 2+ years experience solving complex machine learning problems
  - solid model engineering skills in Python
  - hands-on experience with computer vision techniques like EfficientNet
  - understanding of spatio-temporal modelling techniques
- has experience in MLOps
- takes ownership of their area of expertise and can advance it
- has strong problem-solving skills and like to think outside the box

**What we offer**

- The possibility to shape this important position in a fast-growing SME based near Lucerne
- Working in a small agile team with a lot of autonomy
- Work on a ground-breaking product
- Global customer and scientific projects
- Low bureaucracy, high responsibility and openness to new ideas
- Flexible working hours and home office are possible

At Swisens, we are committed to fostering a culture of innovation, collaboration, and growth. We offer a dynamic and challenging work environment where you can make a real impact and achieve your career goals. Join us and be part of a team that is changing the way we understand and monitor the air we breathe.

**How to apply**

- Please submit your application via [jobs@swisens.ch](mailto:jobs@swisens.ch). Do not hesitate to contact us if you have any questions.