

# XAVIER DELFOSSE

## Data Scientist & Life Science Engineer

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📍 Lausanne, Switzerland



## EXPERIENCE

### Independent Contractor: Machine Learning and Data Science Specialist & Lead Data team

#### Tradepedia

📅 May 2024 – Ongoing

📍 Remotely

- Designed and developed a reinforcement learning-based model for stock market analysis and prediction.
- Deployed MLflow for model tracking and versioning; served models via custom FastAPI endpoints.
- Mentored junior data scientists and managed team collaboration via GitHub.
- Assumed project management responsibilities, including backlog and roadmap planning.

### Bioprocess Development Scientist

#### Securecell AG

📅 Oct 2021 – August 2024

📍 Urdorf, ZH

- Developed and tested automated control strategies for mammalian and microbial cell cultures using real-time process data.
- Integrated convolutional neural networks and machine learning models into bioprocess pipelines.
- Authored and executed validation test plans for new bioprocessing products.
- Led various bioprocess experiments (cell culture and fermentation) and contributed to the Bioprocess 4.0 product roadmap.

### Internship: Scientist in Quality Control

#### Société Suisse des Explosifs

📅 2017 – 2018

📍 Gamsen, VS

- Worked daily as a Lab Scientist in a GMP environment.
- Led the integration of online analysis tools into the quality control lab's workflows.

## THESIS PROJECTS

### 📄 Master Thesis

- "Implementation and usage of an electronic nose for the monitoring of bioprocesses," 2024.

### 📄 Bachelor Thesis

- "Characterization, optimization, and validation of an autosampling unit for microbial fermentation processes," 2021.

## EDUCATION

### M.S. in Applied Computational Life Sciences

#### Zurich University of Applied Sciences

📅 2021 – August 2024 📍 Wädenswil

### B.S. in Life Science Technologies option Biotechnology

#### HES-SO

📅 2018 – 2021

📍 Sion

## HOBBIES



#### Sports

Bouldering, Biking, Roller Skating and Calisthenics



#### Games

Competitive and certified judge for Pokémon TCG (2009–2022)



#### Others

Homebrewer, hobbyist with Arduino and Raspberry, 3D printing

## SKILLS

PyTorch TensorFlow Keras Scikit-learn

XGBoost Darts Stable-Baselines3

Gymnasium

Pandas Dask DuckDB MLflow

FastAPI minIO Coiled

Python R SQL Matlab LaTeX

Git & GitHub

MODDE LabX Lucullus PIMS

Leadership Mentoring Project Management

Science Communication Attention to Detail

Problem Solving

## LANGUAGES

French  
English  
German

