

# 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

Python R SQL Matlab PyTorch  
TensorFlow Scikit-learn ML DL  
RL NLP LLMs LangChain Langflow  
MARL MLflow Git  
MODDE LabX Lucillus USP DSP  
PAT HPLC GC fermentation cell culture  
PCR

Team leadership project ownership  
Science Communication analytical thinking

## LANGUAGES

French  
English  
German

