

# XAVIER DELFOSSE

## Data Scientist & Life Science Engineer

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## 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

