

# 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 – July 2025    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

PythonRSQLMatlabPyTorch

TensorFlowScikit-learnMLDL

RLNLPLLMsLangChainLangflow

MARLMlflowGit

MODDELabXLucillusUSPDSP

PATHPLCGCfermentationcell culture

PCR

Team leadershipproject ownership

Science Communicationanalytical thinking

## LANGUAGES

French  
English  
German

