JULIETTE PARCHET

EPFL GRADUATE, MACHINE LEARNING ENGINEER

Avenue Du 24-Janvier 3, Renens (VD), 1020, Switzerland | +33770471022 |
juliette.parchet@gmail.com | www.linkedin.com/in/juliette-parchet

PROFILE

With a Master's degree in Data Science from EPFL, I am eager to apply scalable machine learning to real-world challenges. I have experience with deep learning, model deployment, and synthetic data generation through projects in LLM fine-tuning, synthetic domain adaptation, and interpretable AI. During my internship at Schindler, I built automated ML pipelines for 3D surface estimation, improving accuracy and robustness of industrial applications. I am eager to deliver scalable ML systems by combining strong engineering practices, cloud experience, and ML skills.

TECHNICAL SKILLS

Applied Machine Learning	Deep Learning (PyTorch)	Model Deployment and Clouds (Docker, Azure)
Computer Vision and NLP	Data Pipelines (ETL, MLOps)	Python Programming

EDUCATION

Master in Data Science **Sep 2022 — Mar 2025**
EPFL (Swiss Federal Institute of Technology), Lausanne
Graduated with 5.17/6 GPA.

Bachelor in Communication Systems **Sep 2018 — Jul 2022**
EPFL (Swiss Federal Institute of Technology), Lausanne
Graduated with 4.91/6 GPA.

Computer science teacher formation for secondary II **Aug 2023 — Jul 2024**
HEP (Haute Ecole Pédagogique), Lausanne

Bilingual English Maturité (secondary diploma) **Sep 2015 — Jul 2018**
Ecole Moser, Geneva
Diploma obtained with honors and with a language Award (English, German, French)

WORK EXPERIENCES

6-months Computer Vision Internship, Schindler Group, Lausanne **Sep 2024 — Feb 2025**
Developed, deployed, and optimized an automated full ML pipeline for 3D surface estimation and extraction in industry applications.

- Built end-to-end Dockerized Azure pipelines from raw data to simulation-ready outputs using SDF/Plenoxel techniques.
- Improved surface accuracy of 3D reconstruction by refining models and pipeline components, raising product fidelity.
- Collaborated with EPFL IMOS Laboratory and stakeholders, presenting results and coordinating project milestones

One-year Computer Science Teacher, High School, Nyon **Aug 2023 — Jul 2024**
Delivered advanced coding curricula and hands-on projects to develop computational thinking and problem-solving skills.

- Facilitated sessions, translating complex coding and technical concepts into clear explanations for diverse learners.
- Built technology-integrated lesson plans and assessments to track progress, enhance engagement, and prepare students for evolving tech landscapes, as well as designed projects fostering applied ML thinking for students.

One-year PyGirls Tutoring, Boston Consulting Group, Online **Apr 2022 — Apr 2023**
Delivered online coding sessions to teach Python fundamentals and practical programming applications.

- Led Zoom breakout sessions, fostering engagement and collaborative problem-solving among participants.
- Designed tailored learning materials and collaboratively optimized curriculum to enhance instructional impact.

ACADEMIC PROJECTS

Actionability of Explainable AI, EPFL, Lausanne **Sep 2023 — Jan 2024**

- Investigated actionable neural network explanations, with visualizations and user studies for interpretability.
- Analyzed large volumes of explainer outputs and extracted meaningful statistics to support human decision-making.

LLM Fine-Tuning for Math QA, EPFL, Lausanne **Feb 2023 — May 2023**

- Fine-tuned large language models for domain-specific question answering using chain-of-thought solution format.
- Hands-on experience with transformers, chain-of-thought datasets, fine-tuning techniques, Hugging Face, PyTorch.

Synthetic Domain Adaptation via Diffusion Models, EPFL, Lausanne **Feb 2023 — May 2023**

- Team project to generate a synthetic dataset using state-of-the-art diffusion models to simulate realistic images.
- Trained and optimized a lightweight image-to-image translation network in PyTorch, enabling fast and effective domain adaptation across visual tasks.

Image Analysis and Pattern Recognition, EPFL, Lausanne **Feb 2023 — May 2023**

- Designed a Computer Vision pipeline to extract puzzle pieces and detect outliers from an image.
- Applied concepts like image segmentation, feature extraction, shape representation, and in/out-of-distribution classification techniques, using the Fourier analysis.

EXTRA-CURRICULAR ACTIVITIES

Hackathon, EPFL, Lausanne **Apr 2025**

Ranked 2nd at the Lemanic Life Science Hackathon 2025 with the Tumorscope Project .

Prototyping and Gaming, Online

Indie video game development, see projects.

ADDITIONAL INFORMATION

Language

- English (C1): One-year exchange in UK
- French (C2)
- German (A2)

Personal Details

- 25 years old
- French (B permit)

REFERENCES

Dr Malcolm Mielle at Schindler Group (contact information available upon request)