Axel, Dinh Van Chi
9B rue de Kerielcun, Plougonvelin, France
(+33) 06 46 66 57 49 axeldvc@gmail.com
github.com/axeldinh axeldinh.github.io

Machine Learning Engineer

Education

M.Sc. in Computational Science and Engineering
EPFL - Swiss Federal Institute of Technology of Lausanne — Lausanne | 2020 - 2023

- Student assistant for the machine learning course in autumn 2021.
- Courses: Deep Learning, Machine Learning, Image Processing, Parallel and High-Performance Computing, Advanced Numerical Analysis, Software Engineering, Mathematical Foundations of Signal Processing.

B.Sc. in Mathematics
EPFL - Swiss Federal Institute of Technology of Lausanne — Lausanne | 2015 - 2020

- Private teacher in mathematics and physics.

Experience

Restaurant Manager
Cusco 11 — Lausanne | 2023

- Managed a team of 5 while serving and satisfying 60+ customers per lunch and dinner shift.

Research Intern - Computational Imaging
Sony Europe B.V. — Stuttgart | 2022

- Developed and implemented an advanced interpolation technique for BRDF data, reducing acquisition time of material reflectance properties from 8 hours to just 5 minutes (90% improvement).
- Implemented BRDF interpolation using Python. Used C++ in Mitsuba 2 and Unreal Engine for rendering.

Projects

AI-Based Chatbot Mobile Application
Personal Project — 2023 - Now

- Deep learning model interacting with the user using a library of movies' sentences.
- Backend developped using Flask and containerized using Docker. Application development using Flutter.

Reinforcement Learning Library Implementation
Personal Project - axeldinh.github.io/rl_learning — 2023

- Development of a reinforcement learning library for learning purposes.
- Technical Skills: Reinforcement Learning, Documentation, Python Packaging

Master Project: Motion Correction in Cardiac MRIs
EPFL - Computer Vision Laboratory - axeldinh.github.io/master_project — Lausanne | 2022 - 2023

- **Computer Vision:** Deep Learning based extraction of Left Ventricles in MRIs.
- Improved the quality of MRI scans, avoiding redundant use of MRI scanners, which are both time-consuming and expensive.

Transfer Learning in Natural Language Processing
EPFL - Machine Learning and Optimization Laboratory - axeldinh.github.io/bert-finetune — Lausanne | 2021

- Study of the finetuning of the Bert model while freezing 99.9% of its weights

Languages

French Native **English** Fluent **Spanish** Elementary **German** Elementary

Skills

Programming	Python, PyTorch, Pandas, Scikit-Learn, OpenCV, C++, Matlab, Latex, Flutter, CUDA, Git, HuggingFace, WandB, PyTorch-Lightning, Slurm
Engineering	Computer Vision, NLP, Statistics, Simulation of PDEs, Linear Algebra
Soft Skills	Teamwork, Documentation, Engaging Presentation