Axel, Dinh Van Chi

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AI and Algorithms Engineer

Experience

AI and Algorithms Engineer - a-gO
France | 2024 - Now

- Develop and maintain 3D human pose estimation algorithms. Integrate and optimize algorithms on IOS mobile devices for high-frequency real-time applications.
- Fine-tune and evaluate deep learning models using custom datasets on AWS EC2 instances.

Restaurant Manager - Cusco 11
Lausanne | 2023

- Manage 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

- Develop and implement an advanced interpolation technique for BRDF data, reducing the acquisition time of materials' 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.

Education

M.Sc. in Computational Science and Engineering - EPFL
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
Lausanne | 2015 - 2020

- Private teacher in mathematics and physics.

Projects

AI-Based Chatbot Mobile Application - Personal Project
2023

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

Reinforcement Learning Library Implementation - Personal Project
2023

- Development of a reinforcement learning library intended for self-guided study.
- Technical Skills: Reinforcement Learning, Documentation, Python Packaging

Master Project: Motion Correction in Cardiac MRIs - EPFL
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.

PDE Solving using Deep Learning - EPFL
Lausanne | 2021 - 2022

- Implementation of a Variational Physics-Informed Neural Network framework capable of handling maginary
- Experiments on Helmholtz equation.

Transfer Learning in Natural Language Processing - EPFL
Lausanne | 2021

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

Skills

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

Languages

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