

Multimodal Deep Learning PhD student seeking a summer research internship with industry experts

Education

- 2022–Ongoing **Université Paris-Saclay / Centrale Supélec - L2S**,
Signal Processing, PhD.
Representation of encoded features for extractive and abstractive summarization of multimodal content. Under the supervision of Frederic DUFAUX and Camille GUINAUDEAU
- 2018–2021 **Institut Polytechnique de Paris - Télécom SudParis**,
Statistical Modeling, Master of Science.
Applied Mathematics, Deep Learning

Experiences

- Jul 2022–Dec 2024 **PhD Researcher**, JUSTAI, PARIS.
◦ Conducting research on Summarization of videoconference records using Multimodal Deep Learning methods.
◦ Building machine learning pipelines, for various applications such as Meeting Summarization, Keyframes Extraction, Image Segmentation, Tracking & Recommender Systems.
- Jan 2022–Jun 2022 **Machine Learning Engineer**, FREELANCE, PARIS.
Developing Image Segmentation & Detection Models, teaching Deep Learning, contributing to Open Source projects.
- Jul 2021–Dec 2021 **Computer Vision Research Intern**, HUAWEI R&D CENTER, HELSINKI.
Developing Multimodal Models for Long Video Understanding, Video Retrieval & Image Generation.
- Feb 2021–Jun 2021 **Machine Learning Engineer Intern**, JUSTAI, PARIS.
Proof of Concepts with Language Models, developing Data Processing and Data Visualization pipelines.
- Jul 2019–Aug 2019 **Machine Learning Research Intern**, ARTEMIS LAB, TÉLÉCOM SUDPARIS, EVRY.
Developing Image Classification Datasets & Models.

Projects

- 2022–Ongoing **Deep Learning blog posts [Blog]**.
- Dec 2022 **Romanian Whisper [Model]**, *HuggingFace*.
- Apr 2022–May 2022 **BigBio BioMedical Dataset project [Org]**, *BigScience*, published at NeurIPS 2022.
- Apr 2022–May 2022 **WikiArt Diffusion Mini [Project]**, *HuggingFace & Paperspace*, HugGAN Sprint.
- Jan 2022– Feb 2022 **Romanian Wav2Vec2 [Model]**, *HuggingFace & OVHCloud*, Robust Speech Recognition Challenge.
- July 2021 **T5-VAE [Demo]**, *Google & HuggingFace*, JAX/Flax Community Week.

Selected Publications

- Nov 2024 **Mitigating the Impact of Reference Quality on Evaluation of Summarization Systems with Reference-Free Metrics**, *The 2024 Conference on Empirical Methods in Natural Language Processing*, 2024.
- Apr 2024 **Design choices for Vision Language Models in 2024**, *Hugging Face Blog*, 2024.
- Sep 2023 **TIB: A Dataset for Abstractive Summarization of Long Multimodal Videoconference Records**, *20th International Conference on Content-based Multimedia Indexing*, 2023.

Skills

- Languages Python (JAX/Flax, PyTorch), Bash, SQL, Java
- Research Interests Vision Language Models, Large Language Models, Evaluation, Multimodality, Document Understanding
- Spoken Languages French (native), English (Full professional proficiency : 990/990 TOEIC), Spanish (Notions)

Certifications

- Oct 2024 **Deep Learning Optimized for the Jean-Zay supercomputer (DLO-JZ)**, *IDRIS (CNRS)*.
- Jul 2022 **Effective MLOps - Model Development [Certificate]**, *Weights & Biases*.