Souhail Hadgi

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I am a final-year PhD student specializing in Artificial Intelligence and Computer Vision. My research focuses on transfer learning for 3D data, with emphasis on effective fine-tuning of pre-trained models for shape analysis, segmentation, and cross-modal (image and text) applications.

Technical Skills

Languages: Python, SQL, MATLAB, R
Frameworks: PyTorch, TensorFlow, Scikit-learn
Areas of Expertise: Machine Learning, Deep Learning, 2D & 3D Computer Vision, Natural Language Processing, LLM, Generative Modeling, Computer Graphics, Optimisation

Education

École Polytechnique — France
PhD Student. Supervised by Prof. Maks Ovsjanikov — *Jan. 2023 – 2026*

École Normale Supérieure Paris-Saclay — France
M2 Master: MVA (Mathematics, Vision, Learning). GPA: 4.0 — *2022*

CentraleSupélec — France
Master of Engineering: Major in Mathematics, Specialization in Data Science. GPA: 4.0 — *2022*
Bachelor of Engineering — *2019*

Publications

To Supervise or Not to Supervise: Understanding and Addressing the Key Challenges of Point Cloud Transfer Learning
Souhail Hadgi, Lei Li, Maks Ovsjanikov
ECCV 2024 (Link)

Escaping Plato's Cave: Towards the Alignment of 3D and Text Latent Spaces
Souhail Hadgi et al.
CVPR 2025 (Link)

Experience

Research intern — May 2022 – Oct. 2022
École Polytechnique
- Analysis of several unsupervised pre-training approaches for 3D representation learning
- Adapted scene point-level contrastive learning approaches for 3D shapes

Data Scientist Intern — Aug. 2020 – Jul. 2021
DataScientest
- Designed Computer Vision modules for a Deep Learning Curriculum
- Supervised Deep Learning applied projects
- Conceived the scientific content of Data Challenges
- Teached Deep Learning courses for cohorts of learners

Projects

Reconcile video predictions from multiple angles
Sicara
- Created a TensorFlow pipeline that generates videos of highways corresponding to a different view angle from the initial viewpoint
- Optimized an auto-encoder architecture for image generation

Segmentation models for audio data
Illuin Technology
- Created an end-to-end PyTorch deep learning pipeline for Speaker Diarisation
- Trained and evaluated the diarisation pipeline on the TCOF dataset