

# Killian Steunou

Deep Learning Research Engineer

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## Summary

Deep-Learning Research Intern at IDEMIA completing M2 MVA internship; pursuing Deep-Learning Research Engineer role in Computer Vision from October 2025.

## Education

- 2024–2025 **M2 Mathématiques, Vision, Apprentissage**, *ENS Paris-Saclay*, Gif-sur-Yvette, France.  
Optimal Transport, Computer Vision, Probabilistic Graphical Models, Representation Learning, Generative Models, 3D Modeling
- 2023–2024 **M1 Applied Mathematics & Statistics**, *Toulouse School of Economics*, Toulouse, France.  
Econometrics, Probability, Optimization, Machine Learning, Game Theory, MDP
- 2019–2022 **Double Bachelor in Applied Mathematics & Economics**, *Toulouse School of Economics*, Toulouse, France.
- 2022 **Gap-semester**, *University of Copenhagen*, Copenhagen, Denmark.

## Technical Skills

- Languages Python, R,  $\text{\LaTeX}$ , Bash
- Frameworks PyTorch, NumPy, Pandas, Streamlit
- Tools Git, Linux, Google Cloud
- Concepts Optimization, Machine Learning, Deep Learning, Mathematics

## Experience

- Apr 2025–Oct 2025 **Deep-Learning Research Intern**, *IDEMIA*, Paris, France.
  - Investigated multi-object tracking and segmentation.
  - Built automatic video instance-segmentation mask generator from MOT data with SAM2.
  - Trained custom tracking models with instance-segmentation auxiliary task.
- Apr 2024–Aug 2024 **AI Research Intern**, *C.L.S.*, Toulouse, France.
  - Benchmarked foundation models for Earth-observation semantic segmentation.
  - Surveyed state-of-the-art self-supervised methods for imagery and remote sensing.
  - Developed tested Python library for fine-tuning vision foundation models.
- Feb 2023–Jul 2023 **Machine-Learning Engineer Intern**, *Jolibrain*, Toulouse, France.
  - Contributed to open-source image-generation tool *joliGEN*.
  - Implemented edge-detection methods for generation control.
  - Trained experimental diffusion models for inpainting.
- May 2022–Aug 2022 **R Developer Intern**, *French Ministry of Agriculture*, Paris, France.

## Projects

- Feb 2024 **Video Background Removal**.  
Automatic background removal behind subjects in video using AI models. GitHub
- Dec 2024 **Test Time Training with Masked Autoencoders**.  
Extension of the TTT-MAE method with an online version that shows better performance than the original method. GitHub | Report