






Ivan Khodakov

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Education

ENS Lyon

M1 specialization in Computer Science, 2025 – 2027

- Maths : Linear and Non Linear Optimization, Cryptography and Security.
- Computer Science : Parallel Algorithms and Programs, Compilation and Program Analysis, Network Measurements.

Télécom Paris

M1 specialization in Image Processing and Data Science, 2022 – 2024

- Maths : Statistics, Optimisation, Probability, Fourier Analysis.
- ML/AI : Supervised and Unsupervised ML, Graph Learning, Trees, SVM, CNN, VAE, GAN, Transformer, NLP, LLMs.
- Computer Vision : Segmentation, Boundary detection, Object Recognition, Image registration, Restoration, Compression. Using Variational and Bayesian methods, Markov random fields, Graphs.

Lycée Janson de Sailly/ Henri Wallon

*Preparatory class PC**, 2019 – 2022*

- An intensive post-secondary program preparing for national competitive exams to get into engineering schools (Mathematics, Physics, Chemistry, Computer Science, English, Philosophy).


Experience

Research Internship (Gap Year)

Orosound , March 2025 – September 2025

- Working with Thomas Serre and Eric Benhaim on knowledge distillation to reduce complexity of personalized speech enhancement models.
- Leading to a publication at ICASSP 2026.

Research Internship (Gap Year)

LTCI , Sept 2024 – Febr 2025

- Working with Enzo Tartaglione and Ekaterina Iakovleva on Machine Unlearning in team Multimedia.

President of a student humanitarian association

Télespoir , 2023 – 2024

- Led a one-month humanitarian mission in Senegal with a team of 7 students, successfully renovating 4 classrooms and constructing 2 new ones. Raised €9,000 through grant application and event organization.
- Successfully organized student events with hundreds of participants.

Publications

Khodakov Ivan, Serre Thomas, Fontaine Mathieu, and Benhaim Eric (2026). “DualDF : A lightweight personalized speech enhancement system obtained through knowledge distillation”. In: *ICASSP 2026 - 2026 IEEE International Conference on Acoustics, Speech and Signal Processing (waiting for final acceptance but reviews are positive)*. URL: <https://ivankhodakov.github.io/files/icassp26.pdf>.

Projects

Research project on StyleGAN2

 June 2024

- Editing of face images by manipulating latent codes. To exhibit semantics I used PCA and SVMs.

Skin Lesion Classification - ISIC dataset

 April 2024

- Scored among the best in a Kaggle competition among students in Télécom Paris. The aim was to classify skin lesions into 9 classes. Tools Used: CNN, Resnet50, Pytorch, Data Augmentation, Feature Extraction.

Other Projects

2023

- Predict the outcome of a football match. Tools Used : XGBoost, Weights and Biases.
- Detection JPEG compression and forgeries in Python in image using algorithms like the DCT of the images.
- Creation of a mobile recipe application with carbon footprint computation.