ANTOINE RATOUCHNIAK

https://antoinertk.github.io/

antoine.ratouchniak@ens-paris-saclay.fr

EDUCATION

2023 - 2024 **M.Sc. in mathematics and artificial intelligence, MVA** — ENS Paris-Saclay, France
Coursework: convex optimization, probabilistic graphical models and deep generative models, computational optimal transport, machine learning for time series, geometric data analysis, introduction to numerical imaging, bayesian machine learning, kernel methods, algorithms for speech and natural language processing, mathematics for neurosciences, deep learning for medical imaging, generative models for images, reinforcement learning

2022 - 2023 **Research Year in Artificial Intelligence** — ENS Paris-Saclay, France
Coursework: foundations of AI, AI for images and videos, AI for natural language processing, AI for time series, object recognition and computer vision (MVA) and image denoising (MVA)

2021 - 2022 **M.Sc. in mathematics and artificial intelligence** — Université Paris-Saclay, France
Coursework: probability, statistics, machine learning, deep learning, natural language processing, algorithms and data structures, graph theory, information theory, mathematics for artificial intelligence, optimization and introduction to image processing

2018 - 2021 **B.Sc. in mathematics and computer science** — Université Gustave Eiffel, France
Top 5% for three consecutive years

WORK EXPERIENCE

03/2023 Present **New York University**, **NYU Video Lab** — New York City, United States
Internship on critical regions prediction for language processing from ECoG data under the supervision of Yao Wang and Adeen Flinker

11/2023 3 months **ENS Paris-Saclay, Centre Borelli, HIA Bégin** — Gif-sur-Yvette, France
Internship on time series analysis from EEGs of patients in intensive care unit under the supervision of Laurent Oudre and Clément Dubost

04/2023 3 months **ENS Paris-Saclay, Centre Borelli** — Gif-sur-Yvette, France
Internship on image processing and deep convolutional networks under the supervision of Enric Meinhardt-Llopis

2019 - 2021 **Piano teacher** — France
Piano lessons for beginners and intermediate students

PUBLICATIONS

2024 *In progress* **Deep learning models based on neurophysiology to predict language cortex stimulation**, *A. Ratouchniak, J. Chen, X. Chen, Y. Wang, A. Flinker*

ADDITIONAL EDUCATION

06/2019 **Music diploma** — Noisiel, France
Music diploma in piano and music theory obtained with honors

SKILLS & INTERESTS

Languages French (native), English (fluent), Spanish (intermediate)

Programming Java, Python (scikit-learn, PyTorch), C, PHP, JavaScript, Git, MATLAB

Sport Running, Fitness, Judo