# https://antoinertk.github.io/

# ANTOINE RATOUCHNIAK

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#### **EDUCATION**

2022 - 2023

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

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 Internship on critical regions prediction for language processi supervision of Yao Wang and Adeen Flinker	New York City, United States ng from ECoG data under the
11/2023 3 months	ENS Paris-Saclay, Centre Borelli, HIA Bégin Internship on time series analysis from EEGs of patients in supervision of Laurent Oudre and Clément Dubost	Gif-sur-Yvette, France intensive care unit under the
04/2023 3 months	ENS Paris-Saclay, Centre Borelli Internship on image processing and deep convolutional network Meinhardt-Llopis	Gif-sur-Yvette, France s under the supervision of Enric
2019 - 2021	<b>Piano teacher</b> Piano lessons for beginners and intermediate students	France

### **PUBLICATIONS**

2024 Deep learning models based on neurophysiology to predict language cortex stimulation,
In progress 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