ANTOINE RATOUCHNIAK

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WORK EXPERIENCE

05/2024 - 11/2024 Meta Platforms, FAIR (Fundamental Al Research) Research Scientist Intern London, United Kingdom Leveraging pre-training across different brain decoding tasks (image, speech and word) within the Brain & AI team supervised by Hubert Jacob Banville and Jean Remi King New York University, NYU Video Lab 03/2023 - Present Visiting Researcher New York City, United States Working on critical regions prediction for language processing from ECoG data under the supervision of Yao Wang and Adeen Flinker ENS Paris-Saclay, Centre Borelli, HIA Bégin 11/2022 - 01/2023 Research Intern Gif-sur-Yvette, France Time series analysis from EEGs of patients in intensive care unit under the supervision of Laurent Oudre and Clément Dubost **ENS Paris-Saclay, Centre Borelli** 04/2022 - 07/2022 Research Intern Gif-sur-Yvette. France Image processing and deep convolutional networks under the supervision of Enric Meinhardt-Llopis

EDUCATION

ENS Paris-Saclav

M.Sc. in mathematics and artificial intelligence, MVA Gif-sur-Yvette. France Coursework: convex optimization, probabilistic graphical models, computational optimal transport, time series, geometric data analysis, numerical imaging, bayesian machine learning, kernel methods, algorithms for speech, mathematics for neurosciences, deep learning for medical imaging, generative models for images

ENS Paris-Saclay

Research Year in Artificial Intelligence 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)

Paris-Saclay University

M.Sc. in mathematics and artificial intelligence Orsay, France Coursework: probability, statistics, machine learning, deep learning, natural language processing, algorithms and data structures, graph theory, information theory, mathematics for AI, optimization and image processing

Gustave Eiffel University

B.Sc. in mathematics and computer science Top 5% for three consecutive years

PUBLICATIONS

| Deep learning models based on neurophysiology to predict language cortex stimulation | 2025 |
|--|-------------|
| A. Ratouchniak, J. Chen, X. Chen, A. Khalilian-Gourtani, Y. Wang, A. Flinker | In progress |

ADDITIONAL EDUCATION

Music diploma

Music diploma in piano and music theory obtained with honors

SKILLS & INTERESTS

| Languages | French (native), English (fluent), Spanish (intermediate), Chinese (basic) |
|-------------|--|
| Programming | Python (scikit-learn, PyTorch), Java, Git, SQL, MATLAB, C, PHP, JavaScript |
| Sport | Running, Fitness, Judo |

2023 - 2024

2022 - 2023 Gif-sur-Yvette, France

2021 - 2022

2018 - 2021 Champs-sur-Marne, France

2019