INES MERAOUMIA

PhD student in Image Processing and Artificial Intelligence
phone: +33 7 78 38 84 75 ⋄ ines.mera@live.fr ⋄ linkedin.com/ines-meraoumia

PhD candidate with a strong background in Probability, Algebra, Data Science and Image Processing. Very curious and easy-learner.

EDUCATION

PhD Candidate, Télécom Paris, Institut Polytechnique de Paris — Nov 2020 - Today
Deep Learning for Remote Sensing images and their interpretation
Key words: Deep Learning, Image Interpretation, Remote Sensing, Physical Modelization.
Advisors: Prof. Florence Tupin and Prof. Loic Denis

MSc Mathématiques Vision Apprentissage (MVA), ENS Paris-Saclay, University Paris-Saclay — 2019 - 2020
MSc in applied Mathematics for AI and Computer Vision (Research oriented).
University Paris-Saclay is ranked #1 in the Shanghai Ranking (ARWU) 2022 in Mathematics
Majors: Convex Optimization, Probabilistic Graphical Models,
Reinforcement Learning, Bayesian Machine Learning, Remote Sensing Data,
Deep Learning, Image Denoising.

Master of Engineering, Télécom Paris, Institut Polytechnique de Paris — 2017 - 2020
Télécom Paris is a leading French Grandes Ecoles, ranked #1 in Computer Science
Majors: Image Processing, Data Science

Classes préparatoires aux Grandes Ecoles PCSI/PC*, Lycée Henri IV — 2015 - 2017
Intensive program in Mathematics, Physics and Engineering to enter the French Grandes Ecoles.

EXPERIENCE

Teaching Assistant, Télécom Paris, Institut Polytechnique de Paris — Nov 2020 - Today

- Mathematics for Signal Processing: Fourier transform and recursive filtering
- Markov Random Fields for Image Processing, Bayesian analysis with MRF.
- Graph-cut optimization for image segmentation.
- Introduction to Remote Sensing Image Processing
- Board Member of the Deep Learning Group of the LTCI IMAGES lab: planning seminars and discussion about new methods in Deep Learning

Research Scientist, Télécom Paris, Institut Polytechnique de Paris — Avril 2020 - Nov 2020
Main topic of research: *Adaptative Regularization for SAR Tomography*

- Finding a new regularization function for tomographic inversion based on geometrical priors
- Solving numerous optimization issues with ADDM algorithms.

Data Engineer Summer internship, Natixis — July - Aug 2018

- Mastering the Hadoop technology
- Developing a Python script to change an Oracle control file into a Hadoop ingestion file.

TECHNICAL SKILLS

Programming	Python (Tensorflow, Pytorch), MATLAB, Mathematica, LateX
Languages	French (Native language), Spanish (Advanced)

INTERESTS

- Hiking: The Camino de Santiago or the Way of Saint James, from Paris to Tours (300 km)
- Member of the feminine rugby 7s team in Engineering school (loosehead prop)

PRIZES AND PUBLICATIONS

- *Exploiting multi-temporal information for improved speckle reduction of Sentinel-1 SAR images by deep learning*, Emanuele Dalsasso, Inès Meraoumia, Loïc Denis, Florence Tupin, IGARSS 2021
- *Fast strategies for multi-temporal speckle reduction of Sentinel-1 GRD images*, Inès Meraoumia, Emanuele Dalsasso, Loïc Denis, Florence Tupin, IGARSS 2022
- *Débruitage multi-temporel d'images radar à synthèse d'ouverture par apprentissage profond auto-supervisé*, Inès Meraoumia, Emanuele Dalsasso, Loïc Denis, Florence Tupin, GRETSI 2022
- *Multi-temporal speckle reduction with self-supervised deep neural networks*, Inès Meraoumia, Emanuele Dalsasso, Loïc Denis, Rémy Abergel, Florence Tupin, TGRS 2023

- Co-recipient of the ***the 2021 IEEE GRSS Symposium Prize Paper Award*** for the paper *Exploiting multi-temporal information for improved speckle reduction of Sentinel-1 SAR images by deep learning.*