



Basile ROUSSE

PhD student in image processing and AI at Université Paris Cité

Looking for a VIE/post-doc position in Singapore or a permanent position in Paris area from November 2024

CONTACT

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Paris, France

Basile Rousse



LANGUAGES



French : Native speaker



English : Advanced (IELTS 7/9)



Spanish : Basics

SKILLS

Programming

- Python, Pytorch, Tensorflow ...
- C++, R

Scientific

- Mathematics
- Probability, Statistic
- Physics
- Machine and Deep Learning
- Remote Sensing
- Demography

INTERESTS

- New technologies
- Photography
- Hiking, Guitar

EXPERIENCES

Research Projects

PhD – *Université Paris Cité LIPADE, French Institute for Demographic Studies (INED), France* | 2021 – 2024

Land-cover classification of sub-Saharan Africa using semi-supervised domain adaptation methods

- JURSE 2023 – “*Seasonal semi-supervised domain adaptation for linking population studies and Local Climate Zones*”
- ICLR 2023 Workshop on Machine Learning for Remote Sensing – “*Linking population data to high resolution maps: a case study in Burkina Faso*”
- Population Association of America Annual Meeting 2023 – “*Linking Malaria and Local Climate Zones: a country-level geospatial analysis in Burkina Faso*”
- Living Planet Symposium 2022 – Early results on domain adaptation

IMSAT, nanosatellite – *IMT Atlantique, France* | 2020 - 2021

Marine litter detection from remote sensing images using AI algorithm

➤ Hackathon ActInSpace 2020, Brest: 1st price, CNES space ambassador 2021

Space waste capture – *Laboratoire d'Optique Appliquée (LOA) CNRS ENSTA Paris/Ecole Polytechnique, France* | 2020 - 2021

Study of the ultra-fast absorption of laser energy by metals and semi-conductors materials, experiments and digital modelling

Work Experiences

Teaching assistant – *Université Paris Cité, France* | 2022 – 6 months

Supervision of Master students in advanced programming (Python et C++)

Engineer intern R&D – *Stellantis, France* | 2021 – 6 months

Driver monitoring using Transformers neural network and study of embeddability

Research intern – *Multitel, Belgium* | 2020 – 4 months

Application of deep learning methods for forest mapping from satellite images (Unet, DeepLabV3+)

EDUCATION

PhD in image processing and AI - *Université Paris Cité French Institute for Demographic Studies (INED)* | 2021 – 2024

Prediction of demographic indicators from remote sensing images.

Supervision: Sylvain Lobry, Géraldine Duthé, Valérie Golaz, Laurent Wendling

MsEng - *IMT Atlantique (Top 5 French Engineer Schools)* | 2018 – 2021

Engineering studies specialized in Data Science

Preparation for the entrance to Grandes Ecoles – *Lycée Lakanal* | 2015 – 2018

Intensive courses in science to prepare for highly selective entrance exams for engineering schools.