MATTEO BASTICO

Third year PhD fellow of the Horizon 2020-Marie Skłodowska-Curie Actions-COFUND European program AI4TheSciences at Mines Paris – PSL University (Paris, France).

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SKILLS

- Python (PyTorch, CUDA)
- Image Segmentation
- Vision Transformers
- Medical Imaging
- Point Cloud
- Git and GitHub
- Article Writing and Design

LANGUAGES

Italian (First language)

English (C1)

Spanish (C1)

French (B1-B2)

Driving license and car owner.

PROFILE

My current focus is on applying deep learning and computer vision techniques to medical data, like images and 3D data, aiming to develop state-of-the-art technologies for computer-aided surgery planning. This includes working with Vision Transformers, the Segment Anything Model, and Diffusion Models.

EXPERIENCE

AI Research Scientist | UPM (Madrid, Spain)
2021 – 2022

- Involved in international European Union's Horizon 2020 Projects, such as GenoMed4All and PROCare4Life.
- Developed, implemented and published AI models in Python using PyTorch (DNA Analysis, Patient Identification).
- Proactively participated in team works, meetings, business trips, article publications and conferences.

ICT Help Desk Agent | IL GAZZETTINO (Venice, Italy)
2018 – 2019

Front-End Developer | Valore4IT (Venice, Italy)
2014 – 2015

EDUCATION

PhD in Deep Learning and Computer Vision Methods for ACL Surgery Planning | Mines Paris – PSL University (Paris, France)
2022 – 2025 (Expected)

MSc ICT for Internet and Multimedia cum Laude | University of Padua, (Italy)
2018 – 2021 | Final grade: 110/110 cum Laude

MSc Telecommunication Engineering | UPM (Madrid, Spain)
2019 – 2021 | Final grade (MSc Thesis): 10/10

BSc Information Engineering | University of Padua (Italy)
2015 – 2018 | Final grade: 105/110

SCOLARSHIPS

Double Master's Degree program
2019 – 2021 | University of Padua (Italy) & UPM (Madrid, Spain)

Doctoral program AI4TheSciences
2022 – 2025 | Horizon 2020-Marie Skłodowska-Curie Actions-COFUND PSL University (Paris, France)

TEACHING

Image Segmentation
2024 | PSL week Machine Learning for Science and Engineering

Students internship supervision, guiding research projects
2024 | DIMA research module (Mines Paris – PSL University)

PUBLICATIONS

- M. Bastico et al., 'Coupled Laplacian Eigenmaps for Locally-Aware 3D Rigid Point Cloud Matching', **CVPR 2024.**
- M. Bastico et al., 'A Simple and Robust Framework for Cross-Modality Medical Image Segmentation applied to Vision Transformers', **ICCVW 2023**

For my complete bibliography please refer to my Google Scholar or my website.