Enrico Pallotta

AI Researcher

Nationality: Italian

Current location: Bonn, Germany.

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LinkedIn , GitHub , Google Scholar , Website

Education

PhD | 2024 – 2027 | UNIVERSITY OF BONN, GERMANY

- Computer Vision
- Topics: Video diffusion models, Forecasting, Controllable Video Generation, World Models, Multi-modal Vision Language Models.
- Supervisor: Prof. Dr. Juergen Gall

MASTER'S DEGREE | 2021 – 2023 | UNIVERSITY OF BOLOGNA, BOLOGNA

- Artificial intelligence.
- Final grade: 110/110 summa cum laude.

BACHELOR'S DEGREE | 2018 - 2021 | UNIVERSITY OF BARI "ALDO MORO", BARI

- Computer science.
- Final grade: 110/110 summa cum laude.

HIGH SCHOOL DIPLOMA | 2013 - 2018 | I.T.T. NERVI-GALILEI, ALTAMURA

- High school of computer science.
- Final grade: 100/100 with honors.

Professional experiences

PhD RESEARCHER | COMPUTER VISION GROUP - UNIVERSITY OF BONN | GERMANY | MARCH 2024 – 2027 (expected)

Conducting research on video diffusion models. Applications include forecasting, controllable video generation, multi-modal video generation, world models.
Assist supervisor in academic duties, including exam preparation, grading, and supervising MSc student projects and theses.

RESEARCH INTERNSHIP | TECHNOLOGY INNOVATION INSTITUTE | ABU DHABI | FEBRUARY 2023 – SEPTEMBER 2023

Perception and computer vision research intern in the autonomous robotics research center for the development of the perception module for racing drones but also trajectory generation for control, sensor fusion algorithm, deep learning model optimization through CUDA and TensorRT.

Here I've been also working on my master thesis and a RA-L paper concerning the collection and annotation of an extended dataset for drone racing and the implementation of both deep learning and computer vision techniques for objects pose estimation.

RESEARCH STUDENT INTERNSHIP | UNIVERSITY OF BARI | FEBRUARY 2021 – JULY 2021

Thesis work: "Segmentation of lung nodules with Mask R-CNN". Using state-of-the-art segmentation neural networks to find and define morphological features of lung nodules in 3D CT scans.

Academic publications

- **E. Pallotta**, Sina Mokhtarzadeh Azar, Shuai Li, Olga Zatsarynna, Jürgen Gall, "SyncVP: Joint Diffusion for Synchronous Multi-Modal Video Prediction", IEEE Conference on Computer Vision and Pattern Recognition (CVPR) 2025.
- M. Bosello, D. Aguiari, Y. Keuter, **E. Pallotta**, S. Kiade, G. Caminati, F. Pinzarrone, J. Halepota, J. Panerati, G. Pau, "Race Against the Machine: a Fully-annotated, Open-design Dataset of Autonomous and Piloted High-speed Flight", IEEE Robotics and Automation Letters (RA-L) 2024.
- *Yuri Noviello, ***Enrico Pallotta**, *Flavio Pinzarrone, *Giuseppe Tanzi, "TeamUnibo at SemEval-2023 Task 6: A transform based approach to Rhetorical Roles prediction and NER in Legal Texts", Proceedings of the 17th International Workshop on Semantic Evaluation (SemEval) 2023.

Skills

TECHNICAL SKILLS

Python, PyTorch, C++, CUDA, ROS1, ROS2, Linux, TensorRT, Torch Parallel (DDP, FSDP), Multi-node training, Diffusion Models, Generative AI, Video Generation, Image Generation, Deep Learning, Machine Learning.

LANGUAGES

- English: fluent speaking and writing.
- Italian: native
- German: basic (A1)

LICENSES

- Parallel programming with CUDA | Coursera | 2023.