Gianluca **Scarpellini**

Computer Vision researcher and Enthusiast learner

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Looking for new collaborations in Computer Vision and Deep Learning

Education

Università degli studi di Milano - Bicocca [notes repository] *Milano, Italy*

B.S. in Computer Science **(GPA 29.5/30, final grade 110L/110)** *Sep 2015 - Jul 2018*

M.S. in Computer Science **(GPA 29.45/30, final grade 110L/110)** *Oct 2018 - Oct 2020*

Computer Vision, Robotic vision, and Machine learning

Udacity

Deep Reinforcement Learning [projects repository] *Mar 2020 - Apr 2020*

Sensor Fusion Engineering [projects repository] *Apr 2020 - May 2020*

Experience

Ph.D. in Computer Vision *Genova, Italy*

Italian Institute of Technology *Mar 2020 -*

Research on event-cameras, reinforcement learning, and self-supervision for robotics.

Supervisors: Dr. Alessio Del Bue (Computer Vision) and Dr. Lorenzo Natale (Robotics)

DL Research Intern *Milano, Italy*

ARGO Vision *May 2019 - Jan 2020*

- Trained state-of-the-art models for aerial semantic segmentation with IOU > 80% (Keras, Hyperopt)
- Trained models for car model and maker classification (200 classes) with accuracy > 80% (Keras)
- Adapted a plate detection & OCR pipeline for raspberry pi (Keras, Darknet, Tensorflow lite)

Projects

Lifting Monocular Events to 3D Human Poses github *CVPRw 2021*

Python — PyTorch

- Trained models to predict 3D human pose from a single event-camera
- Average of 80mm per-joint precision error

Open-source contributions github

Python *Nov 2020 -*

- Pytorch-lightning github

University projects *M.s. in Computer Science*

Projects — Matlab, Python *Sep 2017 - Oct 2020*

- Chess Detection (Matlab — github): Implemented a pipeline for chessboard detection and geometry perspective correction
- Insertion Matcher (Python — github): Pipeline for linking product insertions based on title only. 86% F1-score on Gold Standard
- Fashion Answer (Python — github): Implemented a clothes retrieval bot. Pipeline: segmentation + feature extraction + KDTree

Skills

Computer skills and frameworks

Proficiency in

- Python *(OpenCV, Tensorflow, Pytorch, Keras, Scikit-learn, Pytorch-lightning)*
- Matlab *(Matlab Computer Vision toolkit, Image Processing toolkit)*
- C++ *(OpenCV, YARP, Openpose)*

Languages

Proficiency in

- **Italian** — Mother tongue
- **English** — Business fluent