Gianluca **Scarpellini**

COMPUTER VISION RESEARCHER AND ENTHUSIAST LEARNER

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Looking for a Ph.D. 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)**   *Oct 2018 - Oct 2020*

Major in Computer Science and Minor in Applied machine learning

Udacity

DEEP REINFORCEMENT LEARNING [PROJECTS REPOSITORY]   *Mar 2020 - Apr 2020*

SENSOR FUSION ENGINEERING [PROJECTS REPOSITORY]   *Apr 2020 - May 2020*

Experience

Visiting Scientist   *Genova, Italy*

ITALIAN INSTITUTE OF TECHNOLOGY @ PAVIS   *Mar 2020 -*

- Event-based machine vision research
- Trained models for dynamic behavior classification from events stream
- Trained models for 2D and 3D pose estimation from single view

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

Fashion Answer github   *Unimib*

PROJECT — PYTHON   *Feb 2020*

- Trained UNet for segmentation of clothes in real environment with IOU > 90% (Pytorch)
- Trained classification models for class and subclass prediction with overall score > 95% (6 classes and 43 subclasses)
- Implemented a pipeline for similar clothes retrieval using KDTree (Sklearn)

Insertion Matcher github   *Unimib*

PROJECT — PYTHON   *Jan 2020*

- Pipeline for linking product insertions based on title only
- Trained NLP models with state of the art performance using hyperparameters optimization (Pytorch, PyGPGO)
- > 86% F1-score on Gold Standard

On road object detection from RGB and LIDAR data github   *Image and Vision Lab, Unimib*

B.S. THESIS — PYTHON   *Feb 2018 - Jul 2018*

- Generated RGBD from RGB and LIDAR data
- Trained object detection & recognition models (Pytorch, Darknet)
- > 60% mAP on benchmark dataset (KITTI Benchmark Suite)

Chess Detection github   *Unimib*

PROJECT — MATLAB   *Feb 2018*

- Implemented a pipeline for chessboard detection and geometry perspective correction in real scenarios
- Trained chess pieces classifier with pipeline overall score > 90%

Skills

Computer skills and frameworks

PROFICIENCY IN

- Python *(OpenCV, Tensorflow, Pytorch, Keras, Scikit-learn)*
- Matlab *(Matlab Computer Vision toolkit, Image Processing Toolkitt)*
- C++ *(OpenCV, Event-based vision SDKs)*

Languages

PROFICIENCY IN

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