Gianluca Scarpellini

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EDUCATION

UNIVERSITY OF MILANO-BICOCCA
MS in Computer Science
Oct 2020 | Milan, Italy
GPA: 110L / 110

BS in Computer Science
Jul 2018 | Milan, Italy
GPA: 110L / 110

LINKS

- gianscarpe
- gianlucascarpellini
- gianscarpellini

COURSEWORK

UNIVERSITY
Advanced Machine Learning
Computer Vision
Robotics
Signal processing
Probabilistic models
Machine Learning

ONLINE
Deep Reinforcement Learning (Udacity)
Probabilistic Machine Learning (Coursera)

SUMMER SCHOOLS
Eastern European Summer School 2021
Mediterranean Summer School 2021

SKILLS

PROGRAMMING LANGUAGES
Python • C++ • Node.js • C# • Matlab

Proficiency with:
Opencv • Pytorch • Pytorch-lightning
Keras • Tensorflow • Scikit-learn

WHO AM I

My name is Gianluca and I am a 2nd year PhD student at the Italian Institute of Technology. I believe AI can empower humanity if purposely managed and developed. Therefore, I am looking for job opportunities to shape novel technological breakthroughs and have an impact.

SELECTED OPEN-SOURCE CONTRIBUTIONS

Year	Description	Source
2021	Lifting Monocular events to 3d human poses [2]	CVPR2021 [Github | Blog]
2021	Test refactoring and multi-gpu utilities	Pytorch Lightning [Github]
2020	NLP pipeline for ads matching	Personal Project [Github]
2020	Fashion images retrieval	Kaggle challenge [Github]
2018	Classical CV pipeline for chessboard detection	Personal project [Github]

EXPERIENCE

ARGO VISION | ML Research Internship
May 2019 - Jan 2020 | Milan, Italy

- Developed deep learning models for aerial semantic segmentation. IOU > 80% (Keras, Hyperopt)
- Trained models for car model and maker classification (200 classes) with accuracy > 80% (Keras)
- Deployed plate detection & OCR pipeline on Raspberry PIs (Keras, Darknet, Tensorflow lite)

FLASH DELIVERY | Back-end Developer
Jun 2017 – Apr 2019 | Bergamo, Italy

- Developed and deployed back-end infrastructure (C#, Node.JS)
- Maintained database and data analysis (SQLServer, MongoDB)

BERGAMOPOST | Freelance journalist and photographer
Sep 2016 – Sep 2017 | Bergamo, Italy
I covered social and economic events and their impact on local communities. I focused on local businesses and how they embrace the challenges of globalization.

RESEARCH

ITALIAN INSTITUTE OF TECHNOLOGY
Ph.D. Student
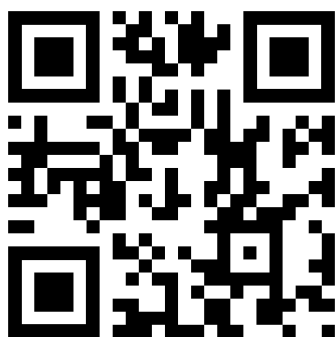Nov 2020 – Present | Genova, Italy

Visiting Scientist
Mar 2020 – Oct 2020 | Genova, Italy

- Developed the first pipeline for solving human pose estimation with a single event-camera [2] and for person-re identification [1]
- Conducted research on training object-detectors without any annotations by actively exploring an environment [3]

IMAGING VISION LAB - BICOCCA | Undergraduate Researcher
Mar 2018 – Jul 2018 | Milan, Italy
I conducted research for my thesis as an undergraduate student. My works focused on car, pedestrians, and cyclists detection from RGB ad LIDAR data (Kitti dataset).

PUBLICATIONS

[1] S. Ahmad, G. Scarpellini, P. Morerio, and A. Del Bue. Event-driven re-id: A new benchmark and method towards privacy-preserving person re-identification. In *Proceedings of the IEEE/CVF Winter Conference on Applications of Computer Vision*, pages 459–468, 2022.

[2] G. Scarpellini, P. Morerio, and A. Del Bue. Lifting monocular events to 3d human poses. In *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR) Workshops*, pages 1358–1368, June 2021.

[3] G. Scarpellini, S. Rosa, P. Morerio, L. Natale, and A. Del Bue. Look around and learn. Under review at ECCV2022.