



Cosimo Rubino

**PhD, Computer Vision Researcher,
Mechatronic Engineer**

Professional Experience

09/2018 - now, Computer Vision Engineer and Data Scientist

Vision diagnostics - Mer Mec S.p.A, activity: design of custom convnets for railway diagnostics and 3D point cloud analysis.

06/2017¹, R&D Engineer, Unitec Group

Research activity: Computer Vision, 3D reconstruction
3D visual analysis and inspection of fruits.

07/2016, Fellow - Fellow Senior, Italian Institute of Technology - VGM

Research activity: Computer Vision, 3D object localisation and reconstruction - Implementation of the research on semantic 3D reconstruction.

Education

09/2013 - 26/04/2017, Italian Institute of Technology - VGM

PhD in Computer Vision

Thesis Title: Scene Understanding with Multi-view Geometry and Semantics
Research field: 3D Scene Reconstruction - Motion Segmentation
Advisor: PhD Alessio Del Bue

10/2015 - 04/2016, University of Adelaide

Visiting PhD student - Research field: Motion Segmentation
Advisor: Dr. Tat-Jun Chin

2005 - 2012, Università di Trento

Master Degree in Mechatronic Engineering

Principal subjects: Mechanical - Electronical Engineering

Bachelor Degree in Industrial Engineering

Principal subjects: Material - Mechanical Engineering

Skills

Programming

- | | | |
|----------------|-------------|-----------|
| ○ Matlab | Python | C (basic) |
| ○ Ruby (basic) | C++ (basic) | |

Data Analysis - Computer Vision Tools

- | | | |
|---------------------|---------------------|-----------------|
| ○ Keras (Python) | Tensorflow (Python) | Caffe (Matlab) |
| ○ CV Matlab toolbox | OpenCV (Python) | Open3D (Python) |

Tools

- | | | |
|-------------|-------------|---------------|
| ○ Linux | Sketchup | Illustrator |
| ○ AutoCAD | ANSYS | DS DraftSight |
| ○ MS Office | LibreOffice | LaTeX |

Cosimo Rubino
04/03/1986
cosimo.rubino@
outlook.com
cosimorubino.com
+39 377 1578435

Address

Via De Amicis 11
75100 Matera (MT)
Italy

¹The activity was contemporary with the IIT research activity in June/July.



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Scientific interests

Computer Vision

- Multiple View Geometry
 - Motion Segmentation
 - Object Detection
- Structure from Motion
Scene Reconstruction
Machine Learning

Conferences, Presentations and Courses

Conferences attended

- IEEE CVPR 2016 - Las Vegas, Nevada. Presented the work "Structure From Motion with Objects"
- ICIAP 2015 - Genova, Italia.
- IEEE WACV 2015 - Kona, Hawaii. Presenting the work "Semantic Multi-Body Motion Segmentation"

Certified attended courses

- **'Tensorflow in Practice'**, L. Moroney - Google Brain, (2020, Coursera)
- **'Neural Networks and Deep Learning'**, **'Convolutional Neural Networks'**, Andrew Ng - Stanford University, (Dec 2018, Coursera)
- **'Machine Learning'**, A. Ng, Stanford University, (2013, Coursera)
- **'Image and video processing course'**, Guillermo Sapiro - Duke University, (started on Jan 14th 2013, Coursera)

Publications

1. Carotti, L.; Altizio, S.; Mandriota, C.; **Rubino, C.**; Real time Deep Learning for Sleeper Crack Detection, (**WCRR**), Tokyo, 2019.
2. **Rubino, C.**; Crocco, M.; Murino, V. ; Del Bue, A.; Semantic Multi-body Motion Segmentation, (**WACV**), Hawaii, 2015.
3. Crocco, M. ; **Rubino, C.**; Del Bue, A.; Structure from Motion with Objects, IEEE (**CVPR**), Las Vegas, 2016.
4. **Rubino, C.**, Crocco, M., Del Bue, A., 3D Object Localisation from Multi-view Image Detections, IEEE (**TPAMI**), 2017.
5. **Rubino, C.**, Fusiello, A., Del Bue, A., Lifting 2D object detections to 3D: A geometric approach in multiple views. (**ICIAP**), 2017.
6. Gay P., **Rubino, C.**, Crocco, M., Del Bue, A., Factorization based Structure from Motion with Object Priors. IEEE (**CVIU**), 2017.
7. Gay P., Bansal, V., **Rubino, C.**, Del Bue, A., Probabilistic Structure from Motion with Objects (PSfMO). IEEE (**ICCV**), Venezia, 2017.
8. **Rubino, C.**, Del Bue, A., Chin, T.J., Practical Motion Segmentation for Urban Street View Scenes. IEEE (**ICRA**), Brisbane, 2018.

Languages

- **Italian**
Native
- **English**
Intermediate, conversationally fluent

I hereby authorize the use of my personal data in accordance to the GDPR 679/16 - "European regulation on the protection of personal data".

June 8, 2020