

Matteo Ruggero Ronchi

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Education

- Sep '13 – Present Ph.D. Student in Computer Science
California Institute of Technology, Pasadena, USA
- Oct '10 – Dec '12 Master of Science in Computer Science Engineering *cum laude*
University of Siena, Siena, Italy
- Sep '07 – Oct '10 Bachelor of Science in Computer Science Engineering *cum laude*
University of Siena, Siena, Italy

Research Experience

- Sep '13 – Present Research Assistant – Computational Vision Lab, Caltech
- Jul '10 – Dec '12 Research Assistant – Artificial Intelligence Research Laboratory, University of Siena

Teaching Experience

- Jul '18 – Sep '18 *Summer Undergraduate Research Fellowship (SURF) Tutor*. Mentor a student through the process of research as a creative intellectual activity. Project Title: “*Monocular 3D Human Pose Estimation from Weakly Supervised Data*.”
- Jul '15 – Sep '15 *Summer Undergraduate Research Fellowship (SURF) Tutor*. Mentor a student through the process of research as a creative intellectual activity. Project Title: “*Learning a Rotation Invariant Low Rank Basis for Pose Estimation*.”
- Sep '14 – Dec '14 CS 187: *Neural Computation*, Instructor: Professor Perona, Role: *Teaching Assistant*
This course investigates models of neural computation and their neurological substrate. Neurobiology is used as a motivating factor to introduce relevant algorithms, such as neural networks, population coding, spike-based computing, etc.

Publications

- Sep '18 *It's all Relative: Monocular 3D Human Pose Estimation from Weakly Supervised Data*. Ronchi, Mac Aodha, Eng, Perona. Proceedings of the British Machine Vision Conference (BMVC 2018). DOI: N/A
- Oct '17 *Benchmarking and Error Diagnosis in Multi-Instance Pose Estimation*. Ronchi, Perona. Proceedings of the International Conference on Computer Vision (ICCV 2017). DOI: 10.1109/ICCV.2017.48
- Dec '16 *A Rotation Invariant Latent Factor Model for Movement Discovery from Static Poses*. Ronchi, Kim, Yue. Proceedings of the IEEE International Conference on Data Mining (ICDM 2016). DOI: 10.1109/ICDM.2016.0156

Sep '15	<i>Describing Common Human Visual Actions in Images</i> . Ronchi, Perona. Proceedings of the British Machine Vision Conference (BMVC 2015). DOI: 10.5244/C.29.52
Sep '14	<i>Distance Estimation of an Unknown Person from a Portrait</i> . Burgos-Artizzu, Ronchi, Perona. Proceedings of the European Conference on Computer Vision (ECCV 2014). DOI: 10.1007/978-3-319-10590-1_21
Dec '12	<i>An Information Theoretic Feature Learning Approach to Visual Recognition</i> . Ronchi, Melacci, Lippi, Maggini, Gori. Master Thesis Dissertation, Siena, 2012. DOI: N/A
Oct '10	<i>Image Steganalysis based on Machine Learning Techniques</i> . Ronchi, Diligenti. Bachelor Thesis Dissertation, Siena, 2010. DOI: N/A

Workshops, Talks & Posters

Sep '18 Oct '17 Oct '16	Organizer of the MS COCO Object Detection and Segmentation, and Pose Estimation Challenges at the European and International Conferences on Computer Vision (ECCV 2016, ICCV 2017, ECCV 2018)
Dec '15	Organizer of the MS COCO Object Detection and Segmentation Challenges at the International Conference on Computer Vision (ICCV 2015)
Jun '15	Organizer of the MS COCO Captioning Challenge at the IEEE Conference on Computer Vision and Pattern Recognition (CVPR 2015)
Jul '14	Student at the International Computer Vision Summer School
Sep '12	<i>A Computer Vision system for the morphological classification of oligodendrocytes in the central nervous system</i> . Ronchi, Amadio, Volontè, Scarselli, Bianchini. First Conference of the Tuscany Bioinformatics Society, Siena
Jul '11	<i>Mental State Classification based on EMOTIV Epoch Headset</i> . Ronchi, Alocci, Gori. University of Trento, Trento

Honors & Awards

Mar '15	Qualcomm Innovation Fellowship 2015 Finalist, "Efficient Inference of Agent-Object Interactions from Images", San Diego, CA, USA
Dec '12	Best Computer Science Graduating Student 2011-12, University of Siena, Siena, Italy

Programming Skills

<i>Research</i>	Python (main), MATLAB, C, C++
<i>Deep Learning</i>	Pytorch (main), Tensorflow
<i>Databases</i>	Amazon Mechanical Turk Development, MongoDB
<i>Front-end</i>	HTML, JavaScript
<i>Mobile</i>	Android
<i>Other</i>	ROS

Languages

English and Italian – Mother Tongue Proficiency

On the Side

- Sep '18* California Institute of Technology Convocation, Invited Speaker
(<https://www.youtube.com/watch?v=3Bsp7d3nt5Y>)
- Fall '18, '19* Instructor of the Improvisation for Scientists (PA040) class at the California Institute of Technology
- Fall '17* Founder of the Improv group "IMprovisation PLayers at the California Institute of Technology" (IMPLiCIT)
- Summer '10, '11* Math and Physics Volunteer Teacher for underprivileged children at the *Amici della Costa D'Avorio* NPO.

References

References and code available upon request.