

ANDREA COLOMBARI

Curriculum vitae

PERSONAL DATA

Birthplace: Verona
Birthday: March, the 18th, 1976
Marital status: unmarried
Nationality: Italian
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37131 Verona, Italy
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member of VIPS Lab. (Vision, Image Processing & Sound Laboratory)

EDUCATIONAL QUALIFICATIONS

- April 2006, PhD in Computer Science (*Dottorato in Informatica*), Dipartimento di Informatica, Università degli Studi di Verona. Title: “*Image-Based Techniques for View Synthesis & Video Editing*”. Supervisor: Prof. Andrea Fusiello.
- December 2002, Computer Science Laurea degree (*Laurea in Informatica vecchio ordinamento*), mark 106/110, University of Verona. Title: “*Tecniche per la costruzione di panorami cilindrici*”. Supervisor: Prof. A. Fusiello.
- June 1995, School-leaving certificate, mark 60/60, ITIS (Istituto Tecnico Industriale Statale) “G. Marconi”, Verona, Italy.

RESEARCH INTERESTS

- Image-based modelling and rendering
- Uncalibrated view synthesis exploiting plane+parallax
- Video sequence analysis (motion segmentation and robust background estimation) exploiting spatio-temporal constraints

RESEARCH ACTIVITIES

- From January 2003 to December 2005, **PhD Scholarship** given by “Dipartimento di Informatica, Università degli Studi di Verona”. During my PhD I worked on Computer Vision, in particular I was interested in Image Based Rendering for uncalibrated view synthesis and in Video Sequences Analysis for motion segmentation and robust background estimation. My research activity was carried out at the VIPS Lab. (Vision, Image Processing and Sound Laboratory) under the supervision of Prof. Andrea Fusiello.
- From April to September 2004, **visiting student** at Department of Electrical, Electronic and Computer Engineering, Heriot Watt University, Edinburgh (UK), under the supervision of Dr. Emanuele Trucco.
- **Laurea Degree Thesis** (*Tesi di Laurea*) at Dipartimento di Informatica, Università degli Studi di Verona, under the supervision of Prof. Andrea Fusiello. I worked on Image Based Rendering by cylindrical image mosaicing.

PhD EDUCATION

Schools

- July, 12th-15th, 2005: “4th VIPS Advanced School on Computer Vision, Pattern Recognition and Image Processing: 3D Reconstruction and Modelling from Video” at Department of Computer Science, University of Verona, Italy.
- June-July, 2005: “Elements of Multiple View Geometry for Computer Vision” Scuola di Dottorato in Ingegneria dell’Informazione Indirizzo di Ingegneria Informatica ed Elettronica Industriali Università degli Studi di Padova.
- February, 17th-18th, 2005: “Scuola Invernale 2005, Eurographics Italian Chapter” at Istituto di Scienza e Tecnologie dell’Informazione Area della Ricerca CNR - Pisa, Italy.
- November, 15th-19th, 2004: “3rd VIPS Advanced School on Computer Vision, Pattern Recognition and Image Processing: Introduction to Bayesian Inference and Statistical Learning” at Department of Computer Science, University of Verona, Italy.
- June, 8th-11th 2004: “2nd VIPS Advanced School on Computer Vision, Pattern Recognition and Image Processing: Computer Vision for Immersive Communications” at Department of Computer Science, University of Verona, Italy.
- June, 23rd-27th 2003: “Ninth Annual EPSRC Summer School on Computer Vision” at University of Surrey, Guildford (UK).

- March, 3rd-14th 2003: “*Bertinoro International Summer School 2003*” at University of Bologna Residential Center Bertinoro (Forlì), Italy.

Courses

- December, 2nd-5th 2003: “*Visual Tracking and Servoing*” course given by Prof. Danica Kragic (Centre for Autonomous System, Royal Institute of Technology) at Department of Computer Science, University of Verona.
- October, 13th - November, 4th 2003: “*Modelli per l’Analisi e l’Elaborazione dei dati*” course given by Prof. Davide Rocchesso, Dott. Andrea Fusiello, Dott. Stefano De Marchi, Dott. Giandomenico Orlandi and Prof. Paolo Fiorini (Dipartimento di Informatica, Università degli Studi di Verona) at Department of Computer Science, University of Verona.
- September, 15th - October, 1st 2003: “*Fondamenti dei linguaggi di programmazione: tipi e modelli*” course given by Prof. Roberto Giacobazzi and Prof. Andrea Masini (Dipartimento di Informatica, Università degli Studi di Verona) at Department of Computer Science, University of Verona.

TEACHING EXPERIENCE

- Co-Supervisor (*Co-Relatore*) of a Thesis for the Laurea Degree, Dipartimento di Informatica, Università degli Studi di Verona.
- A.A. 2005/2006, Teaching assistant for the laboratory activities of the course “Computer Graphics (*Grafica al calcolatore*)”, Dipartimento di Informatica, Università degli Studi di Verona.
- A.A. 2004/2005, Teaching assistant for the laboratory activities of the course “Computer Graphics (*Grafica al calcolatore*)”, Dipartimento di Informatica, Università degli Studi di Verona.
- A.A. 2003/2004, Teaching assistant for the laboratory activities of the course “Computer Graphics (*Grafica al calcolatore*)”, Dipartimento di Informatica, Università degli Studi di Verona.
- 2003, Appointed “Cultore della materia” for the courses “Computer Graphics (*Grafica al calcolatore*)” and “Computer Vision (*Visione Computazionale*)”.

PROFESSIONAL SERVICE

- Reviewer for international conferences: CVPR '06 e '05, Computer Vision and Pattern Recognition, ECCV '06 e '04, European Conference on Computer Vision, ICCV '05, International Conference on Computer Vision, ICIP '05, International Conference on Image Processing, ICPR '04, International Conference on Pattern Recognition.

PUBLICATIONS

Journals

- A. Colombari, A. Fusiello, and V. Murino. “*Segmentation and Tracking of Multiple Video Objects*”. Accepted with minor revision to the Pattern Recognition Journal.

Conferences

- A. Colombari, A. Fusiello, and V. Murino. “*Background Initialization in Cluttered Sequences*”. In Proceedings of the 5th IEEE Workshop on Perceptual Organization in Computer Vision (POCV 2006), in conjunction with IEEE CVPR 2006, June 22 2006.
- A. Colombari, A. Fusiello, and V. Murino. “*Segmentation and Tracking of Multiple Video Objects*”. Accepted with minor revision to the Pattern Recognition Journal.
- A. Colombari, A. Fusiello, and V. Murino. “*Continuous Parallax Adjustment for 3D-TV*”. In Proceedings of the IEE 2nd International Conference on Visual Media Production, 30 November - 1 December 2005, London, UK.
- A. Colombari, M. Cristani, A. Fusiello, and V. Murino. “*Exemplar-based Background Model Initialization*”. In Proceedings of the 3rd ACM International Workshop on Video Surveillance and Sensor Networks, November 11, 2005, Singapore.
- A. Fusiello and A. Colombari. “*View synthesis along a curve from two uncalibrated views*” in Proceedings of the 2nd Workshop On Immersive Communication And Broadcast Systems, 27-28 October 2005, Berlin, Germany.
- A. Colombari, A. Fusiello, and V. Murino. “*Uncalibrated Interpolation of Rigid Displacements for View Synthesis*”. In Proceedings of the IEEE International Conference on Image Processing 2005, September 11-14, Genova, Italy.
- M. Aprile, A. Colombari, A. Fusiello, V. Murino. “*Segmentation and tracking of multiple objects in video sequences*”. In Proceedings of the 5th International Workshop on Image Analysis for Multimedia Interactive Services, 21-23 April 2004, Lisbon, Portugal.

Dissertations

- A. Colombari. “*Image-Based Techniques for View Synthesis & Video Editing*”. Ph.D. Thesis, Supervised by Prof. Andrea Fusiello, Dipartimento di Informatica, Univesità degli Studi di Verona, April 2006.
- A. Colombari. “*Tecniche per la costruzione di panorami cilindrici*”. Tesi di laurea in Informatica, Università di Verona, Dicembre 2002.

SEMINARS AND PRESENTATIONS

- May, 9th 2006. Seminar. “*Robust Background Estimation with Stationary or Moving Cameras*” at Department of Computer Science, University of Verona.
- December, 16th 2006. Seminar. “*Image-Based Techniques for View Synthesis & Video Editing*” at Department of Computer Science, University of Verona.
- December 1st 2005. Oral presentation. “*IEE 2nd International Conference on Visual Media Production*”, London, United Kingdom.
- November, 28th 2005. Seminar. “*Un metodo automatico per la calibrazione di sistemi multi-telecamera*” at Department of Information Engineering, University of Padova (Seminar).
- September 12th 2005. Poster presentation. “*IEEE International Conference on Image Processing 2005*”, Genova, Italy.
- September, 8th 2004. Seminar. “*Plenoptic Modelling and Analysis*” at Department of Electrical, Electronic & Computer Engineering, Heriot-Watt University, Edinburgh.

ATTENDED CONFERENCES

- November 30th - December 1st 2005: “*IEE 2nd International Conference on Visual Media Production*”, London (United Kingdom).
- September 11th – 14th 2005: “*IEEE International Conference on Image Processing 2005*”, Genova (Italy).
- May 17th – 18th 2005: “*Workshop Italy-Canada - 3D Digital Imaging and Modeling: Applications of Heritage, Industry, Medicine and Land*”, Palazzo del Bò, Padova (Italy).
- April, 21st – 23rd 2004: “*5th International Workshop on Image Analysis for Multimedia Interactive Services (WIAMIS 2004)*” at Istituto Superior Tecnico, Lisbon (Portugal).
- September, 25th – 26th 2003: “*Secondo convegno della sezione italiana eurographics*”. Politecnico di Milano - Bovisa, Milano (Italy).
- September, 17th – 19th 2003: “*ICIAP03 - International Conference on Image Analysis and Processing 2003*”. University of Mantova, Mantova (Italy).
- July, 10th – 11th 2003: “*VVG03 - Vision, Video and Graphics 2003*”. University of Bath, Bath (UK).