
GERARD G. MEDIONI

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EDUCATION:

PhD.	Computer Science, 1983
	University of Southern California
Master of Science	Computer Science, 1980
	University of Southern California
Ingénieur	Informatique, 1977
	École Nationale Supérieure des Télécommunications, Paris, France

EMPLOYMENT:

1999 - current	Professor
	Departments of Computer Science and Electrical Engineering, University of Southern California
2001-2007	Chairman
	Department of Computer Science University of Southern California
2000-2001	Chief Technical Officer (while on sabbatical leave)
	Geometrix, Inc., San Jose, CA
1992-1996	President and CEO
	I.C. Vision, Los Angeles, CA
1992 - 1999	Associate Professor
	Departments of Computer Science and Electrical Engineering, University of Southern California
1987-1992	Assistant Professor
	Departments of Computer Science and Electrical Engineering, University of Southern California
1983-1987	Research Assistant Professor
	Departments of Electrical Engineering and Computer Science, University of Southern California
1979-1983	Research Assistant
	Intelligent Systems Group, University of Southern California
1977-1978	Research Engineer
	Underwater Signal Processing Division, Thomson- CSF, Cagnes s/Mer, France

CONSULTING ACTIVITIES:

- **Advisory Board** Member of Primesense
- **Technical Advisory Board** Member of AgentVi
- **Scientific Advisory Board** Member of RCADIA
- **Scientific Advisory Board** Member of BigStage
- **Scientific Advisory Board** Member of DXO Labs
- **Scientific Advisor Board** Perceptronics Solutions
- **Faculty Advisor** of ITU Ventures

PROFESSIONAL ACTIVITIES:

- **Member of Editorial Board**, International Journal of Image and Video Processing (IJIVP), Hindawi Publishing Corporation
- **Member of the Editorial Board**, Pattern Recognition and Image Analysis, Interperiodica Publishing, Birmingham, Alabama
- **Member of the Editorial Board**, Image and Vision Computing, Elsevier Publishers
- **Associate Editor** of International Journal of Image and Video Processing
- **General co-Chair of** Computer Vision and Pattern Recognition, Miami, Florida, 2009
- **Program Committee member of** 4th VISAPP 2009 in Lisbon, Portugal, Jan-Feb 2009
- **Program Committee member of** 3rd International Conference on Computer Vision Theory and Applications VISAPP 2008 in Funchal, Madeira Jan 22-25, 2008
- **Program Committee member of** AFRIF-AFIA Reconnaissance des Formes et Intelligence Artificielle (RFIA'08), Amiens, 21-25 January 2008
- **Program Committee member of** 13th Iberoamerican Congress on Pattern Recognition CIARP'2008, Havana, Cuba, September 09-12, 2008
- **Program Committee member of** Computer Vision for Internet Applications workshop during CVPR 2008, Anchorage, Alaska, June 2008
- **Program Committee member of** Workshop on Non-Rigid Shape Analysis and Deformable Image Alignment in conjunction with CVPR conference, Anchorage, Alaska, June 2008
- **Program Committee member of** first IEEE Workshop on Video/Image Sensor Networks, Colorado, January 7-8, 2008

- **Program Committee member of** AMDO 2008 International Conference on Articulated Motion and Deformable Objects, Puerto Andratx, Mallorca, Spain, July 9-11, 2008
- **Program Committee member of** Advanced Concepts for Intelligent Vision Systems, Nice, France, Oct 20-23, 2008
- **Program Committee member** of International Conference On Pattern Recognition, Tampa, Florida, 2008
- **Program Committe member** of AAAI-08 Physically Grounded AI Track, Chicago, Illinois, July 13-17, 2008
- **Program Committee member** of 5th Joint IEEE International Workshop on Object Tracking and Classification in and Beyond the Visible Spectrum (OTCBVS'08), Egan Convention Center, Anchorage, Alaska, June 27, 2008
- **Registration Chair of** Computer Vision and Pattern Recognition, Anchorage, Alaska, 2008
- **General Co-Chairman** of Computer Vision and Pattern Recognition 2007, Minneapolis, MN, June 2007
- **Program Committee** member of International Conference on Computer Vision Theory and Applications 2007 Barcelona
- **Program Committee** member of 2nd International Symposium on Brain, Vision and Artificial Intelligence 2007, Naples, Italy, October 2007
- **Program Committee** member of IEEE Workshop on Motion & Video Computing, Austin, Texas, February 23-24, 2007
- **Program Committee** member of Immerscom, Verona, Italy May 2007
- **Program Committee** member of 4th Joint IEEE International Workshop on Object Tracking and Classification in and Beyond the Visible Spectrum, Minneapolis, MN, USA, June 22, 2007
- **Program Committee** member of 14th International Conference on Image Analysis and Processing, Sept. 10-13, 2007, Modena
- **Program Committee member** of 11th IEEE International Conference on Computer Vision ICCV 2007, Rio de Janeiro, Brazil, 14-21 October 2007
- **Program Committee member** of Third IEEE International Workshop on Analysis and Modeling of Faces and Gestures (AMFG), Rio de Janeiro, Brazil, October 15, 2007
- **Program Committee member** of Workshop on Interactive Computer Vision (WICV 2007) Rio de Janeiro, Brazil, Oct 2007
- **Program Committee member** of 20th IROS (International Conference on Intelligent Robots and Systems) San Diego, California, 29 Oct-2 Nov 2007

- **Program Committee member** of 9th symposium on Advanced Concepts for Intelligent Vision Systems (ACIVS'2007), Delft, The Netherlands, 28-31 August 2007
- **Program Committee member** of 16th ROMAN 2007. Shilla Jeju Hotel, Jeju, Korea, August 26-29, 2007
- **Program Committee member of** XII CIARP (Iberoamerican Congress on Pattern Recognition), Viña del Mar-Valparaiso, Chile, November, 2007
- **Program Committee member of** International Symposium on Visual Computing , Lake Tahoe, Nevada/California, November, 2007
- **Program Committee member** of (VISAPP) International Conference on Computer Vision Theory and Applications 2007
- **Program Committee** member of ISVC (International Symposium on Visual Computing) 2007
- **Program Committee** member of 4th Joint IEEE International Workshop on Object Tracking and Classification in and Beyond the Visible Spectrum (OTCBVS '07)
- **Committee member** of the IEEE Joint C&T/TAB Conference Review Committee 2006 - Present
- **Program Committee** member of Articulated Motion and Deformable Objects AMDO- e 2006
- **Program Committee** member of 3rd Joint IEEE International Workshop on Object Tracking and Classification in and Beyond the visible Spectrum (OTCBVS '06)
- **Program Committee** member of International Conference on Pattern Recognition 2006
- **Program Committee member** of Advanced Video and Signal Based Surveillance 2006
- **Program Committee** member of 10th CIARP 2005: Havana, Cuba, November 15-18, 2005
- **Program Committee** member of IEEE International Workshop on Analysis and Modeling of Faces and Gestures Beijing, China October, 2005
- **Program Committee** member of IEEE Workshop on Face Recognition Grand Challenge Experiments June 2005
- **Program Committee** member of CVPR 2006, CVPR 2005
- **Program Committee** member of ICCV 2005
- **Program Committee** member of Iberoamerican Congress on Pattern Recognition CIARP 2005
- **Program Committee** member of IEEE Workshop on Applications of Computer Vision, Breckenridge, Colorado, January 2005

- **Program Committee** member of IEEE Workshop on Motion and Video Computing, Breckenridge, Colorado, January 2005
- **Co-Chairman of IEEE** Workshop on Perceptual Organization in Computer Vision, Washington, June 2004
- **General Co-Chairman of** the IEEE Computer Vision and Pattern Recognition, Hawaii, December 2001
- **Program Co-Chairman** of the International Association of Pattern Recognition, Melbourne, Australia, 1998
- **General Co-Chairman and Finance Chair** of the IEEE Conference on Computer Vision and Pattern Recognition, San Juan, Puerto Rico, June 1997
- **Program Co-Chairman** of the 1995 IEEE Symposium on Computer Vision, Coral Gables, Florida, November 1995
- **Program Co-Chairman** of the IEEE Conference on Computer Vision and Pattern Recognition, Maui, Hawaii, June 1991
- **Program Committee** member of XII CIARP (Iberoamerican Congress on Pattern Recognition).
- **Program Committee** member of fifth IEEE Computer Society Workshop on Perceptual Organization in Computer Vision
- **Program Committee** member of Advance Concepts for Intelligent Vision
- **Program Committee** member of 2nd International Symposium on Visual Computing.
- **Program Committee** member of 2nd International Symposium on Brain
- **Program Committee** member of IEEE Workshop on Motion & Video Computing
- **Program Committee** member of 14th International Conference on Image Analysis and Processing (ICIAP)
- **Program Committee** member of 20th IROS (International Conference on Intelligent Robots and Systems)
- **Program Committee** member of XII CIARP (Iberoamerican Congress on Pattern Recognition)
- **Program Committee** member of 11th Iberoamerican Congress on Pattern Recognition
- **Program Committee** member of IEEE CVPR 1989, 1991, 1992, 1993, 1994, ICCV 1995, ICPR 1996, ICIP 1996, CVPR 1997, CVPR 1999, CVPR 2000, CVPR 2003 (area chair), ICCV 2003, CVPR 2004, CVPR 2005

AWARDS:

- **Fellow** of the *American Association for Artificial Intelligence* - 2004
- **Fellow** of the *Institute of Electrical and Electronics Engineer* - 2003
- **Fellow** of the *International Association for Pattern Recognition* - 2003
- **Okawa Foundation Award** for Understanding of Information in Images – 1998
- USC – School of Engineering **Outstanding Teaching Award** – 1994-1995
- **Best paper award** to J. Kang, K. Gajera, I. Cohen and G. Medioni for "Detection and Tracking of Moving Objects from Overlapping EO and IR Sensors" in the Proceedings of the Joint IEEE International Workshop on Object Tracking and Classification Beyond the Visible Spectrum, Washington DC, July 2004
- **Best Student paper award** to M. Nicolescu and G. Medioni for "4-D Voting for Matching, Densification and Segmentation into Motion Layers" in the Proceedings of the International Conference on Pattern Recognition, vol. 3, pp. 303-308, Quebec City, Canada, August 2002
- **Outstanding Paper (honorable mention) Award** by IEEE Computer Society to G. Medioni, J.S. Chen and A. Huertas for "Very Fast Convolution with Laplacian-of-Gaussian Masks" in the Proceedings of the Computer Vision and Pattern Recognition Conference, pp. 293-298, Miami, Florida, June 1986

BOOKS:

- **Tensor Voting: A Perceptual Organization Approach to Computer Vision and Machine Learning**
Gérard Medioni, Phillipos Mordohai
Publisher: Morgan and Claypool Publishers (November 21, 2006). ISBN: 1598291009
- **Emerging Topics in Computer Vision**
Gérard Medioni and Sing Bing Kang
Publisher: Prentice Hall PTR, July 2004. ISBN: 0-13-101366-1
- **A Computational Framework for Segmentation and Grouping**
Gérard Medioni, Mi-Suen Lee, and Chi-Keung Tang
Elsevier Publisher, February 2000. ISBN: 0-444-50353-6

BOOK CHAPTERS:

- **G. Medioni and P. Mordohai, "Saliency in Computer Vision",**
in *Neurobiology of Attention*
Edited by L. Itti, G. Rees, and J. Tsotsos, Elsevier Science, 2005

- **G. Medioni, P. Mordohai, and M. Nicolescu, "The Tensor Voting Framework",**
in Handbook of Geometric Computing : Applications in Pattern Recognition,
Edited by Computer Vision, E. Bayro-Corrochano, Neuralcomputing, and Robotics,
Springer-Verlag, 2005
- **G. Medioni and P. Mordohai, "The Tensor Voting Framework",**
Emerging Topics in Computer Vision,
Edited by S.B. Kang and G. Medioni , Prentice Hall, 2004
- **G. Medioni and P. Mordohai, "Saliency in Computer Vision",**
Neurobiology of Attention,
Edited by L. Itti, G. Rees, and J. Tsotsos , Elsevier Science, 2004
- **C.K. Tang and G. Medioni, "Tensor Voting and Visual Segmentation",**
The Handbook of Brain Theory and Neural Networks: The Second Edition
Edited by Michael A. Arbib, 2003
- **G. Medioni, P. Mordohai and M. Nicolescu, "The Tensor Voting Framework",**
Handbook of Computational Geometry for Pattern Recognition,
Computer Vision, Neurocomputing and Robotics,
Edited by Eduardo Bayro-Corrochano, Springer-Verlag ,2003.

JOURNAL PAPERS:

- Changki Min, "Inferring Segmented Dense Motion Layers Using 5D Tensor Voting", to appear in IEEE Transactions on Pattern Analysis and Machine Intelligence (PAMI)
- Jongmoo Choi, Cheng-Hao Kuo, Douglas Fidaleo, "Identifying Non Cooperative Subjects at a Distance Using Face Images and Inferred 3D Face Models", to appear in Systems, Man, and Cybernetics--Part A: Systems and Humans 2008
- Leo Reyes, Eduardo Bayro-Corrochano, "Registration of 3D points using geometric algebra and tensor voting" International Journal of Computer Vision, vol. 75, no. 3 pp. 351 – 369, November 2007
- Tae Eun Choe, Isaac Cohen, Alexander C. Walsh, Srinivas R. Satta, "2-D Registration and 3-D Shape Inference of the Retinal Fundus from Fluorescein Images" Journal of Medical Image Analysis, pp. 1-17, October 2007
- Chang Yuan, Jinman Kang , "Detecting Motion Regions in Presence of Strong Parallax from a Moving Camera by Multi-view Geometric Constraints", IEEE Transactions on Pattern Analysis and Machine Intelligence(PAMI), vol. 29, no. 9, pp. 1627-1641, September 2007
- Alexandre R.J. François, Matheen Siddiqui, Kwangsu Kim and Hosub Yoon, "Robust Real-Time Vision for a Personal Service Robot", Computer Vision and Image Understanding, special issue on Human-Computer Interaction, vol. 108 , Issue 1-2, pp. 196-203, October 2007
- Philippos Mordohai, Gérard Medioni, "Stereo Using Monocular Cues within the Tensor Voting Framework," IEEE Transactions on Pattern Analysis and Machine Intelligence, vol. 28, no. 6, pp. 968-982, June 2006
- Nicolescu M, Medioni G., "A voting-based computational framework for visual motion analysis and interpretation." IEEE Transactions on Pattern Analysis and Machine Intelligence;27(5):739-752, May 2005
- C. Pan, H. Yan, G. Medioni, and S. Ma, "Parametric Reconstruction of Generalized Cylinders from Limb Edges", IEEE Transactions on Image Processing, Vol 14, number 5, pp. 1202-1214, August 2005
- W.S. Tong, C.K. Tang and G. Medioni, "Simultaneous Two-View Epipolar Geometry Estimation and Motion Segmentation by 4D Tensor Voting in Joint Image Space", IEEE Transactions on Pattern Analysis and Machine Intelligence, vol. 26, no. 9, pp. 1167-1184, September 2004
- C.K. Tang, G. Medioni, P. Mordohai and W.S. Tong, "First Order Augmentations to Tensor Voting for Boundary Inference and Multiscale Analysis in 3-D", IEEE Transactions on Pattern Analysis and Machine Intelligence, vol. 26, no. 5, pp. 594-611, May 2004
- M. Nicolescu and G. Medioni, "Perceptual Grouping from Motion Cues - A 4-D Voting Approach", IEEE Transactions on Pattern Analysis and Machine Intelligence , Special Issue on Perceptual Organization in Computer Vision, vol. 25, no. 4, pp. 492-501, April 2003
- E. Kang, I. Cohen and G. Medioni, "Graph-based Global Registration of Dynamic Scenes", Pattern Recognition Letters, Elsevier Science.

- A. François, G. Medioni and R. Waupotitsch, "Mirror Symmetry => 2-View Stereo Geometry", International Journal of Computer Vision and Image Understanding, vol. 21, no. 2, pp. 137-143, February 2003
- M.S. Lee, G. Medioni and P. Mordohai, "Inference of Segmented Overlapping Surfaces from Binocular Stereo", IEEE Transactions on Pattern Analysis and Machine Intelligence, vol. 24, no. 6, pp. 824-837, June 2002
- C.K. Tang and G. Medioni, "A Curvature-Augmented Tensorial Framework for Shape Inference from Noisy, 3-D Data", IEEE Transactions on Pattern Analysis and Machine Intelligence, vol. 24, no. 3, pp. 858-864, March 2002
- G. Chen and G. Medioni, "Practical algorithms for stratified structure-from-motion", International Journal of Computer Vision and Image Understanding, vol. 20, no. 2, pp. 103-123, February 2002
- B. Leroy, G. Medioni, E. Johnson and L. Matthies, "Crater Detection for Autonomous Landing on Asteroids", International Journal of Computer Vision and Image Understanding, vol. 19, no. 11, pp. 787-792, September 2001
- G. Medioni, I. Cohen, F. Bremond, S. Hongeng and R. Nevatia, "Event detection and analysis from video streams", IEEE Transactions on Pattern Analysis and Machine Intelligence, vol. 23, no. 8, pp. 873-889, August 2001
- C.K. Tang, G. Medioni and M.S. Lee, "N-Dimensional Tensor Voting, Application to Epipolar Geometry Estimation", IEEE Transaction on Pattern Analysis and Machine Intelligence, vol. 23, no. 8, pp. 829-844, August 2001
- A. François and G. Medioni, "Interactive 3-D Model Extraction From a Single Image", International Journal of Computer Vision and Image Understanding, vol. 19, no. 6, pp. 317-328, April 2001
- G. Chen and G. Medioni, "Building Human Face Models from Two Images", Journal of VLSI Signal Processing, Kluwer Academic Publishers, vol. 27, no. 1/2, pp. 127-140, January 2001
- M.S. Lee and G. Medioni, "Grouping .-, ->, O-, into Regions, Curves and Junctions", International Journal of Computer Vision and Image Understanding, vol. 76, no. 1, pp.54-69, October 1999
- G. Medioni and C. Liao, "Surface Approximation and Segmentation of Complex Objects", International Journal of Computer Vision and Image Understanding, vol. 73, no. 1, pp. 43-63, January 1999
- G. Medioni and C.K. Tang, "Inference of Integrated Surface, Curve, and Junction Descriptions from Sparse 3-D Data", IEEE Transactions on Pattern Analysis and Machine Intelligence, vol. 20, no. 11, pp. 1206-1223, November 1998
- G. Medioni and P. Havaladar, "Full Volumetric Descriptions from Three Intensity Images", IEEE Transactions on Pattern Analysis and Machine Intelligence, vol. 20, no. 5, pp. 540-545, May 1998
- G. Medioni and G. Guy, "Inference of Surfaces, Curves and Junctions from Sparse, Noisy 3-D Data", IEEE Transactions on Pattern Analysis and Machine Intelligence, vol. 19, no. 11, pp. 1265-1277, November 1997

- M.S. Lee, G. Medioni and P. Havaladar, "View Synthesis from Unregistered Images", Computer Graphics Forum, vol. 16, no. 1, pp. 65-73, March 1997
- G. Medioni and R. Nevatia, "Computer Vision Research at the University of Southern California", International Journal of Computer Vision and Image Understanding, vol. 20, no. 1/2, pp. 5-10, 1996
- G. Medioni and B. Parvin, "B-Rep Description from Multiple Range Images", International Journal of Computer Vision and Image Understanding, vol. 20, no. 1/2, pp. 81-112, 1996
- P. Havaladar, G. Medioni and F. Stein, "Perceptual Grouping for Generic Recognition", International Journal of Computer Vision and Image Understanding, vol. 20, no. 1/2, pp. 59-80, 1996
- G. Guy and G. Medioni, "Inferring Global Perceptual Contours from Local Features", International Journal of Computer Vision and Image Understanding, vol. 20, no. 1/2, pp. 113-133, 1996
- F. Stein and G. Medioni, "Map Based Localization Using the Panoramic Horizon", IEEE Journal of Robotics, vol. 11, no. 6, pp. 892-896, December 1995
- G. Medioni and F. Ennesser, "Finding Waldo, or Focus of Attention Using Local Color Information", IEEE Transactions on Pattern Analysis and Machine Intelligence, vol. 17, no. 8, pp. 805-809, August 1995
- G. Medioni and Y. Chen, "Description of Complex Objects from Multiple Range Images Using an Inflating Balloon Model", International Journal of Computer Vision and Image Understanding, vol. 61, no. 3, pp. 325-334, May 1995
- C.W. Liao and G. Medioni, "Surface Approximation of a Cloud of 3D Points", Graphical Models and Image Processing, vol. 1, no. 1, pp. 67-74, January 1995
- H. Rom, P. Saint-Marc and G. Medioni, "B-spline contour representation and symmetry detection", IEEE Transactions on Pattern Analysis and Machine Intelligence, vol. 15, no. 11, pp. 1191-1197, November 1993
- H. Rom and G. Medioni, "Hierarchical decomposition and axial shape description", IEEE Transactions on Pattern Analysis and Machine Intelligence, vol. 15, no. 10, pp. 973-981, October 1993
- F. Stein and G. Medioni, "Structural Indexing: Efficient 2-D Object Recognition", IEEE Transactions on Pattern Analysis and Machine Intelligence, vol. 14, no. 12, pp. 1198-1204, December 1992
- G. Medioni and S. Cochran, "3-D Surface Description from Binocular Stereo", IEEE Transactions on Pattern Analysis and Machine Intelligence, vol. 14, no. 10, pp. 981-994, October 1992
- G. Medioni and K. Rao, "Generalized Cones: Useful Geometric Properties", Computer Vision, Graphics and Image Processing, vol.10, no. 3, pp. 185-208, October 1992
- Y. Chen and G. Medioni, "Object Modelling by Registration of Multiple Range Images", International Journal of Computer Vision and Image Understanding, vol. 10, no. 3, pp. 145-155, April 1992

- G. Medioni and F. stein, "Structural Indexing: Efficient Three Dimensional Object Recognition", IEEE Transactions on Pattern Analysis and Machine Intelligence, vol. 14, no. 2, pp. 125- 145, February 1992
- G. Medioni, P. Saint-Marc and J.S. Chen, "Adaptive Smoothing: A General Tool for Early Vision", IEEE Transactions on Pattern Analysis and Machine Intelligence, vol. 13, no. 6, pp. 514-529, June 1991
- G. Medioni, P. Saint-Marc and J.L. Jezouin, "A Versatile PC-Based Range Finding System", IEEE Transactions on Pattern Analysis and Machine Intelligence, vol. 7, no. 2, pp. 250-256, April 1991
- G. Medioni, M. Wilson and A. Huertas, "Automatic Registration of Color Separation Films", International Journal of Machine Vision and Applications, vol. 4, no. 5, pp. 33-51, March 1991
- G. Medioni and F. Ulupinar, "Refining Edges Detected by a LoG Operator", Computer Vision, Graphics and Image Processing, vol. 51, pp. 275-298, September 1990
- G. Medioni, J.S. Chen and A. Huertas, "Authors' reply to comments on Fast Convolution with Laplacian-of-Gaussian Masks", IEEE Transactions on Pattern Analysis and Machine Intelligence, vol. 11, no. 12, pp. 1329-1332, December 1989
- G. Medioni, T.J. Fan and R. Nevatia, "Recognizing 3-D Objects Using Surface Descriptions", IEEE Transactions on Pattern Analysis and Machine Intelligence, vol. 2, no. 11, pp. 1140-1157, November 1989
- G. Medioni, K. Rao, H. Liu and G. Bekey, "Robot Hand-Eye Coordination Shape Description and Grasping", IEEE Control Magazine, vol. 9, no. 2, pp. 22-29, February 1989
- G. Medioni and B. Parvin, "Adaptive Multiscale Feature Extraction From Range Data", Computer vision, Graphics and Image Processing, vol. 45, no. 3, pp. 346-356, March 1989
- G. Medioni, R. Mohan and R. Nevatia, "Stereo Error Detection, Correction and Evaluation", IEEE Transactions on Pattern Analysis and Machine Intelligence, vol. 11, no.2, pp. 113-120, February 1989
- G. Medioni and J.S. Chen, "Detection, Localization and Estimation of Edges", IEEE Transactions on Pattern Analysis and Machine Intelligence, vol. 11 , no. 2, pp. 191-198, February 1989
- G. Medioni, T.J. Fan and R. Nevatia, "Segmented Descriptions of 3-D Surfaces", IEEE Journal of Robotics and Automation, vol. RA-3, no. 6, pp. 527-538, December 1987
- G. Medioni and Y. Yasumoto, "Corner Detection and Curve Representation Using Cubic B-Splines", Computer Vision, Graphics and Image Processing, vol. 39, no. 3, pp. 267-278, September 1987
- G. Medioni, J.S. Chen and A. Huertas, "Fast Convolution with Laplacian-of-Gaussian Masks", IEEE Transactions on Pattern Analysis and Machine Intelligence, vol. 9, no. 4, pp. 584-590, July 1987
- G. Medioni and A. Huertas, "Detection of Intensity Changes with Subpixel Accuracy Using Laplacian Gaussian Masks", IEEE Transactions on Pattern Analysis and Machine Intelligence, vol. 8, no. 5, pp. 651-664, September 1986

- G. Medioni and Y. Yasumoto, "Robust Estimation of 3-D Motion Parameters from a Sequence of Images Using Regularization", IEEE Transactions on Pattern Analysis and Machine Intelligence, vol. 8, no. 4, pp. 464-471, July 1986
- G. Medioni and R. Nevatia, "Segment-Based Stereo Matching", Computer Vision, Graphics and Image Processing, vol. 31, no.3, pp. 2-18, July 1985
- G. Medioni and R. Nevatia, "Matching Images Using Linear Features", IEEE Transactions on Pattern Analysis and Machine Intelligence, vol. 6, no. 6, pp. 675-685, November 1984
- G. Medioni, P. Kaufmann and R. Nevatia, "Visual Inspection Using Linear Features", Pattern Recognition Letters, vol. 17, no. 5, pp. 485-491, April 1984

CONFERENCE PAPERS:

Invited:

- G. Medioni and A. François, "3-D Structures for Generic Object Recognition", Proceedings of the International Conference on Pattern Recognition, vol. 1, pp. 30-37, Barcelona, Spain, September 2000
- G. Medioni, "Making Faces: 3-D Model, Animation, Evaluation", International Workshop on Articulated Models and Deformable Objects, Palma de Mallorca, Spain, September 2000
- G. Medioni and C.K. Tang, "Tensor Voting: Theory and Applications", Proceedings of RFIA 2000, Paris, France, February 2000.
- M.S. Lee and G. Medioni, "Inferred Descriptions in Terms of Curves, Regions, and Junctions from Sparse, Noisy Binary Data", Proceedings of International Workshop on Visual Form, pp. 350-367, Capri, Italy, May 1997
- G. Medioni, "Using Computer Vision in Real Applications: Two Success Stories", International Association of Pattern Recognition Workshop on Application of Computer Vision, Tokyo, Japan, November 1996
- M. Zerroug, G. Medioni and R. Nevatia, "Generic Object Recognition and Quasi Invariance", Proceedings of Europe-China Workshop on Geometric Modeling and Invariants for Computer Vision, pp. 276-285, Xi'an, China, April 1995
- M. Zerroug and G. Medioni, "The Challenge of Generic Object Recognition", Proceedings Of ARPA-NSF workshop on Object Representation, New York, December 1994

Refereed:

- Qian Yu, "Integrated Detection and Tracking for Multiple Moving Objects using Data-Driven MCMC Data Association", Workshop on Motion and Video Computing 2008, Copper Mountain, Colorado (Accepted in 2007).
- Kwangsu Kim, "Distributed Visual Processing for a Home Visual Sensor Network", Video/Image Sensor Networks 2008, Copper Mountain, Colorado.
- Thang Dinh, "Two-Frames Accurate Motion Segmentation Using Tensor Voting and Graph Cuts", Workshop on Motion and Video Computing 2008, Copper Mountain, Colorado (Accepted in 2007).
- Yuping Lin, Qian Yu, "Map-Enhanced UAV Image Sequence Registration", Workshop on Applications of Computer Vision (WACV), Austin, Texas, pp. 1 – 6, Feb 2007
- Yuping Lin, "Map-Enhanced UAV image sequence Registration and Synchronization of Multiple Image Sequences", Computer Vision and Pattern Recognition (CVPR), Minneapolis, Minnesota, pp. 1-7, June 2007
- Qian Yu, Isaac Cohen, "Multiple Target Tracking Using Spatio-Temporal Markov Chain Monte Carlo Data Association", Computer Vision and Pattern Recognition, Minneapolis, Minnesota, pp.1-8, 2007

- Matheen Siddiqui, "Efficient Upper Body Pose Estimation from a Single Image or a Sequence", Workshop on Human Motion, Rio de Janeiro, Brazil, pp. 74-87, November 2007.
- Douglas Fidaleo, Wei-Kai Liao, "Integrating Multiple Visual Cues for Robust Real-Time 3D Face Tracking", Analysis and Modeling of Faces and Gestures, pp. 109-123, November 2007.
- Tae Eun Choe, "3-D Metric Reconstruction and Registration of Images of Near-planar Surfaces", International Conference on Computer Vision, Rio de Janeiro, Brazil, pp. 1-8, October 2007
- Douglas Fidaleo, "Model-Assisted 3D Face Reconstruction from Video", Analysis and Modeling of Faces and Gestures, Rio de Janeiro, Brazil, pp. 124-138, October 2007.
- Jongmoo Choi, Cheng-Hao Kuo, Anustup Choudhury, Li Zhang, Douglas Fidaleo, "Non-Cooperative Persons Identification at a Distance with 3D Face Modeling", Biometrics: Theory, Applications and Systems, Washington DC, pp. 1-6, September 2007
- Eunyoung Kim, Sukhan Lee, "Planar Patch based 3D Environment Modeling with Stereo", RO-MAN 2007, Jeju Island, Korea, pp. 516-521, August 2007
- Chang Yuan, "Inferring 3D Volumetric Shape of Both Moving Objects and Static Background Observed by a Moving Camera", Computer Vision and Pattern Recognition, Minneapolis, Minnesota, pp. 1-8, June 2007.
- Douglas Fidaleo, Jongmoo Choi, Li Zhang, Cheng-Hao Kuo, Kwangsu Kim, "Recognition of Non-Cooperative Individuals at a Distance with 3D Face Modeling", Automatic Identification Advanced Technologies, Alghero, Italy, pp. 112-117, June 2007
- Qian Yu, "Map-Enhanced Detection and Tracking from a Moving Platform", Motion and Video Computing, Austin, Texas, pp. 1-8, February 2007
- Chang Yuan and Gérard Medioni, "3D Reconstruction of Background and Objects Moving on Ground Plane Viewed from a Moving Camera", in the Process of IEEE International Conference on Computer Vision and Pattern Recognition (CVPR), July 2006
- Qian Yu, I. Cohen, Gerard Medioni, Bo Wu, "Boosted Markov Chain Monte Carlo Data Association for Multiple Target Detection and Tracking", International Conference on Pattern Recognition (ICPR), 2006
- Changki Min, Gerard Medioni, "Tensor Voting Accelerated by Graphics Processing Units (GPU)", International Conference on Pattern Recognition (ICPR), 2006
- Changki Min, Qian Yu, Gerard Medioni, "Multi-layer Mosaics in the Presence of Motion and Depth Effects", International Conference on Pattern Recognition (ICPR), 2006
- Matheen Siddiqui, Gerard Medioni, "Real Time Limb Tracking with Adaptive Model Selection", International Conference on Pattern Recognition (ICPR), 2006
- Changki Min, G. Medioni, "Motion Segmentation by Spatiotemporal Smoothness Using 5D Tensor Voting", 5th Workshop on Perceptual Organization in Computer Vision (at CVPR), 2006

- Tae Eun Choe, Isaac Cohen, Munwai Lee, Gerard Medioni, "Optimal Global Mosaic Generation from Retinal Images", International Conference on Pattern Recognition (ICPR), 2006
- Tae Eun Choe, Isaac Cohen, Gerard Medioni, "3-D Shape Reconstruction of Retinal Fundus", IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2006
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