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POSITION HELD

2008 – present **Massachusetts Institute of Technology**
Postdoctoral associate at the Medical Vision group of Prof. Polina Golland, Computer Science and Artificial Intelligence lab, EECS
Harvard Medical School
Research affiliate, Surgical Planning Laboratory, Brigham and Women's Hospital

EDUCATION

2002 - 2007 **Tel-Aviv University**
Ph.D. School of Electrical Engineering, Department of Electrical Engineering – Systems
Thesis: *Prior-based Image Segmentation* with Prof. Nahum Kiryati & Dr. Nir Sochen

1997 - 1999 **The Hebrew University of Jerusalem**
M.Sc. in **Computer Science**. Magna Cum Laude
Thesis: *The Quotient Image: Class Based Recognition and Synthesis under Varying Illumination Conditions* with Prof. Amnon Shashua

1994 - 1996 **The Hebrew University of Jerusalem**
Supplementary studies for M.Sc. Degree in **Computer Science**
Studies at the **Interdisciplinary Center for Neural Computation**

1990 - 1993 **The Hebrew University of Jerusalem**
B.Sc. in **Physics**. Magna Cum Laude

HONORS AND AWARDS

2009 **MICCAI 2009 young scientist award** for the paper:
Joint Segmentation of Image Ensembles via Latent Atlases

2008 **Yitzhak and Chaya Weinstein award** for excellent paper, for the paper:
Prior-based Segmentation and Shape Registration in the Presence of Perspective Distortion, published in **IJCV** 2007.

2007 **Fulbright** Post-Doctoral fellowship
The Commercial & Industrial Club Illan Ramon Post-Doctoral scholar.
The Yitzhak and Chaya Weinstein award for excellence in studies.

2005 **The Yitzhak and Chaya Weinstein award** for excellent paper, for the paper: *Unlevel-Sets: Geometry and Prior-based Segmentation*, published in **ECCV** 2004.

1993 **The Hebrew University of Jerusalem** Appeared on the Dean's list.

PUBLICATIONS

Total number of citations according to Google scholar as of June 2010 is over 500.

Journal Papers

J5. T. Riklin Raviv, K. Van-Leemput, B.M. Menze, W.M. Wells III and P. Golland, *Joint Segmentation of Image Ensembles via Latent Atlases*, Medical Image Analysis (**MedIA**), 2010, in press.

J4. T. Riklin-Raviv, N. Sochen and N. Kiryati, *On Symmetry, Perspectivity and Level-set based segmentation*. IEEE Transactions on Pattern Analysis and Machine Intelligence (**PAMI**). Vol 31(8) pp 1458-1471, August 2009.

J3. T. Riklin-Raviv, N. Sochen and N. Kiryati, *Shape based Mutual Segmentation*. International Journal of computer Vision (**IJCV**). Vol 79(3) pp 231-245, September 2008.

J2. T. Riklin-Raviv, N. Kiryati and N. Sochen, *Prior-based Segmentation and Shape Registration in the Presence of Perspective Distortion*. International Journal of Computer Vision (**IJCV**). Vol 72(3) pp 309-328 May 2007.

J1. A. Shashua and T. Riklin-Raviv, *The Quotient Image: Class Based Re-Rendering and Recognition With Varying Illuminations*. IEEE Transactions on Pattern Analysis and Machine Intelligence (**PAMI**). Vol. 23(2) pp 129-139, February 2001.

Peer Reviewed Conference Papers

C12. T. Riklin-Raviv, V. Ljosa, A.L. Conery, F.M. Ausubel, A.E. Carpenter, P. Golland, C. Wählby, *Morphology-Guided Graph Search for Untangling Objects: C. elegans Analysis*, Proceedings of International Conference on Medical Image Computing and Computer Assisted Intervention (**MICCAI**), 2010, Accepted.

C11. C. Wählby, T. Riklin-Raviv, V. Ljosa, A.L. Conery, P. Golland, F.M. Ausubel, and A.E. Carpenter, *Resolving Clustered Worms via Probabilistic Shape Model*, IEEE International Symposium on Biomedical Imaging: From Nano to Micro (**ISBI**), April 2010.

C10. T. Riklin Raviv, K. Van-Leemput, W.M. Wells III and Polina Golland, *Joint Segmentation of Image Ensembles via Latent Atlases*, Proceedings of International Conference on Medical Image Computing and Computer Assisted Intervention (**MICCAI**), Part I, LNCS 5761, pp. 272–280, September 2009. Received the MICCAI 09 Young Scientist Award.

C9. T. Riklin Raviv, B.M. Menze, K. Van-Leemput, B. Stieltjes, M.A. Weber, N. Ayache, W.M. Wells III and Polina Golland, *Joint Segmentation via Patient-Specific Latent Anatomy Model*, MICCAI workshop: Probabilistic Models for Medical Imaging Analysis (PMMIA), September 2009.

C8. T. Riklin Raviv, N. Ben-Zadok and N. Kiryati *Interactive Level-set Segmentation for Image Guided Therapy*. IEEE International Symposium on Biomedical Imaging: From Nano to Micro (**ISBI**), pp. 1079-1082, June 2009.

C7. N. Kiryati, T. Riklin Raviv, Y. Ivanchenko and S. Rochel, *Real-time Abnormal Motion Detection in Surveillance Video*. International Conference on Pattern Recognition (**ICPR**), pp. 1-4, December 2008.

C6. T. Riklin-Raviv, N. Sochen, N. Kiryati, N. Ben-Zadok, S. Gefen, L. Bertand and J. Nissanov, *Propagating Distributions for Segmentation of Brain Atlas*. IEEE International Symposium on Biomedical Imaging: From Nano to Micro (**ISBI**), pp 1304-1307, April 2007.

C5. T. Riklin-Raviv, N. Kiryati and N. Sochen, *Segmentation with Level Sets and Symmetry*. In Proc. of IEEE Conference on Computer Vision and Pattern Recognition. (**CVPR**), pp 1015-1022, June 2006.

C4 .T. Riklin-Raviv, N. Sochen and N. Kiryati, *Mutual Segmentation with Level Sets*. In the 5th IEEE Workshop on Perceptual Organization in Computer Vision (**POCV**) in conjunction with the CVPR. 2006.

C3. T. Riklin-Raviv, N. Kiryati and N. Sochen, *Prior-based Segmentation by Projective Registration and Level Sets*. In Proc. of the Tenth IEEE International Conference on Computer Vision (**ICCV**).pp 204-211, October 2005.

C2. T. Riklin-Raviv, N. Kiryati and N. Sochen, *Unlevel-Sets: Geometry and Prior-based Segmentation*. In Proc. of the European Conference on Computer Vision (**ECCV**). pp 50-61, May 2004.

C1. T. Riklin-Raviv and A. Shashua, *The Quotient Image: Class Based Recognition and Synthesis Under Varying Illumination Conditions*. In Proc. of IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**). pp 566-571, June 1999.

Patent

N. Kiryati, T. Riklin Raviv, Y. Ivanchenko, S. Rochel, Y. Dvir and D. Harari, *Apparatus and Methods for the Detection of Abnormal Motion in a Video Stream*. European Patent EP1631073B1

ACADEMIC ACTIVITIES

2006- 2007 Coordinator of the Mathematical Visual Perception seminar at Tel-Aviv University

Journal Review IEEE Transactions on Pattern Analysis and Machine Intelligence
IEEE Transactions on Image Processing
IEEE Transactions on Signal Processing
IEEE Transactions on Systems, Man and Cybernetic
International Journal of Biomedical Imaging
International Journal of Image and Graphics
Journal of Visual Communication and Image Representation

Program Committee IEEE Conference on Computer Vision and Pattern Recognition 2006,2007,2009
IEEE International Conference on Computer Vision 2007
European Conference in Computer Vision 2004, 2006, 2008

TEACHING EXPERIENCE

2003-2007 **Teaching Assistant**, Tel-Aviv University, Faculty of Engineering
Introduction to Systems Programming, Digital Logic Systems, Computer Architecture

2003 **Instructor**, Open University, Department of Computer Science
Principals of Operating systems

1996 - 1997 **Teaching Assistant**, The Hebrew University of Jerusalem, Computer Science
Computer Architecture , Algorithms

PROFESSIONAL EXPERIENCE IN THE INDUSTRY

- 2003 **Researcher**, Ramot at Tel-Aviv University Ltd
Development of algorithms for abnormal motion detection.
Cooperative research project sponsored by the Ministry of Industry, Trade and Labor,
Tel-Aviv University, and Nice Systems Ltd. (Magnetron)
- 2001-2002 **Algorithm Developer**, Polycom Israel
Development and implementation of algorithms for play-out scheduling and concealment for
media over IP.
- 1997-2001 **Algorithm Developer**, Orckit Communication (Tioga Technologies Ltd)
Implementation, analysis and performance evaluation of algorithms in signal processing and
coding theory for ADSL and SDSL modems.
- 1996-1997 **Software Engineer**, Telrad Networks Ltd
Software development for Telephone exchanges