

Brief Curriculum Vitae

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EDUCATION

- B.A.** Mathematics, Computational and Applied Mathematics (dual), Rice University, Houston, TX, May 1996.
- M.A.** Computational and Applied Mathematics, Rice University, Houston, TX, May 1996.
- M.A.** Electrical Engineering, Princeton University, Princeton, NJ, June 1998.
- Ph.D.** Electrical Engineering, Princeton University, Princeton, NJ, June 2001.
Dissertation: *Estimation Problems in Digital Video*

APPOINTMENTS

Associate Professor, Department of Electrical, Computer, and Systems Engineering, Rensselaer Polytechnic Institute, Troy, NY, May 2007 to date.

Assistant Professor, Department of Electrical, Computer, and Systems Engineering, Rensselaer Polytechnic Institute, Troy, NY, August 2001-May 2007.

SELECTED PUBLICATIONS

Publications selected from 17 archival refereed journal papers, 17 refereed conference papers, and 14 refereed conference abstracts. PDF versions of all papers are available online at <http://www.ecse.rpi.edu/~rjradke/pubs.htm>.

T. Yapo, C.V. Stewart, and R.J. Radke. "Principled 3D Hypothesis Testing for Probabilistic Object Detection in LiDAR Range Data", *S3D (Search in 3D) Workshop 2008, in conjunction with IEEE CVPR 2008*, June 2008.

A.M. Cheriyyadat, B.L. Bhaduri, and R.J. Radke. "Detecting Multiple Moving Objects in Crowded Environments with Coherent Motion Regions", *Sixth IEEE Computer Society Workshop on Perceptual Organization in Computer Vision (POCV), in conjunction with IEEE CVPR 2008*, June 2008.

E.R. Smith, B.J. King, C.V. Stewart, and R.J. Radke. "Registration of Combined Range Intensity Scans: Initialization Through Verification", *Computer Vision and Image Understanding*, Vol. 110, No. 2, pp. 226-244, May 2008.

A. Cheriyyadat and R.J. Radke. "Automatically Determining Dominant Motions in Crowded Scenes by Clustering Partial Feature Trajectories", *Proceedings of the First ACM/IEEE International Conference on Distributed Smart Cameras (ICDSC-07)*, September 2007.

Z. Cheng, D. Devarajan, and R.J. Radke. "Determining Vision Graphs for Distributed Camera Networks Using Feature Digests", *EURASIP Journal on Advances in Signal Processing: Special Issue on Visual Sensor Networks*, Volume 2007, Article ID 57034, 11 pages.

D. Devarajan, R. Radke, and H. Chung. "Distributed Metric Calibration of Ad-Hoc Camera Networks", *ACM Transactions on Sensor Networks*, Vol. 2, No. 3, pp. 380-403, August 2006.

R.J. Radke, S. Andra, O. Al-Kofahi, and B. Roysam. "Image Change Detection Algorithms: A Systematic Survey", *IEEE Transactions on Image Processing*, Vol. 14, No. 3, pp. 294-307, March 2005.

R. Lu, R.J. Radke, L. Hong, C.-S. Chui, J. Xiong, E. Yorke, and A. Jackson. “Learning the Relationship between Patient Geometry and Beam Intensity in Breast Intensity-Modulated Radiotherapy”, *IEEE Transactions on Biomedical Engineering*, Vol. 53, No. 5, pp. 908–920, May 2006.

O. Al-Kofahi, R.J. Radke, S.K. Goderie, Q. Shen, S. Temple, and B. Roysam.. “Automated Cell Lineage Construction: a Rapid Method to Analyze Clonal Development Established with Murine Neural Progenitor Cells”, *Cell Cycle*, Vol. 5, No. 3, pp. 327–335, February 1, 2006.

D. Freedman, R. Radke, Y. Jeong, T. Zhang, D. Michael Lovelock, and G.T.Y. Chen. “Model-Based Segmentation of Medical Imagery by Matching Distributions”, *IEEE Transactions on Medical Imaging*, Vol. 24, No. 3, pp. 281–292, March 2005.

PROFESSIONAL ACTIVITIES

- **Reviewer**, *IEEE CVPR 2005-2007, IEEE ICCV 2005, ECCV 2006, ACM SIGGRAPH, IEEE Transactions on Biomedical Engineering, IEEE Transactions on Image Processing, IEEE Transactions on Multimedia, IEEE Transactions on Pattern Analysis and Machine Intelligence, ACM Multimedia, IEEE Transactions on Automation Science and Engineering, Computer Vision and Image Understanding, Machine Vision and Applications, Advanced Robotics.*
- **Program Committee**, *IEEE Computer Vision and Pattern Recognition 2005-2007, IEEE International Conference on Computer Vision 2005, European Conference on Computer Vision 2006, Workshop on Omnidirectional Vision, Camera Networks, and Non-classical Cameras 2005, IEEE Pacific-Rim Symposium on Image and Video Technology (PSIVT '06), First ACM/IEEE International Conference on Distributed Smart Cameras (ICDSC '07)*
- **Area Chair**, *IEEE Computer Vision and Pattern Recognition 2008*
- **Program Co-Chair**, *Second ACM/IEEE International Conference on Distributed Smart Cameras (ICDSC '08)*

SYNERGISTIC ACTIVITIES

- NSF ERC for Subsurface Sensing and Imaging Systems (CENSSIS)
- RPI Center for Pervasive Computing and Networking (CPCN)
- RPI Center for Next Generation Video (CNGV)
- RPI Center for Image Processing Research (CIPR)

RECENT COLLABORATORS

- Diane Demers, Daniel Freedman, Brad King, Badri Roysam, Paul Schoch, Eric Smith, Chuck Stewart (Rensselaer Polytechnic Institute)
- George T.Y. Chen (Massachusetts General Hospital)
- Chen Chui, Linda Hong, Andrew Jackson, Michael Lovelock, Jie Yang, Ellen Yorke (Memorial Sloan Kettering Cancer Center)

CURRENT AND FORMER ADVISEES

- Omar Al-Kofahi, Jacob Becker, Siqi Chen, Anil Cheriyyadat, Dhanya Devarajan, David Doria, Yongwon Jeong, Renzhi Lu, Linda Rivera, Eric Smith, Ted Yapo (Ph.D., Rensselaer Polytechnic Institute)
- Srinivas Andra, Zhaolin Cheng, Haeyong Chung, Chao Ling (M.S., Rensselaer Polytechnic Institute)

THESIS ADVISORS

Ph.D.: Peter Ramadge and Sanjeev Kulkarni, Department of Electrical Engineering, Princeton University

HONORS AND AWARDS

- Member, 2007 DARPA Computer Science Study Panel.
- Elevated to Senior Member of the IEEE, August 2006.
- NSF CAREER Award for Faculty Early Career Development, March 2003.