

# Niels da Vitoria Lobo

## University Address

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## Academic Employment

- Assistant Professor, Computer Science, Univ. of Central Florida, Orlando FL; 1993 – 1998.
- Associate Professor, Computer Science, Univ. of Central Florida, Orlando FL; 1998 – present.

## Education

- Ph.D., Department of Computer Science, University of Toronto, 1993.
- M.Sc., Department of Computer Science, University of Toronto, 1985.
- B.Sc. (Highest Honours), Dept of Mathematics, Dalhousie University, Canada, 1982.

## Honors and Awards

- 2012 Invited Participant, NAE FOEE Conference
- 2009 UCF Teaching Incentive Program (TIP) Award
- 2008 Millionaire Award, UCF Office of Research
- 1996 UCF Teaching Incentive Program (TIP) Award
- 1994 - 1998 NSF Research Initiation Award
- 1987 - 1990 Department of Computer Science Scholarship
- 1982 - 1986 Natural Sciences and Engineering Research Council Postgraduate Scholarship
- 1982 Digital Equipment Corporation Award of Merit for Best Graduating Student in Computer Science
- 1982 Natural Sciences and Engineering Research Council Undergraduate Research Award
- 1981 *First Prize*, ACM Regional Undergraduate Computing Competition
- 1979 - 1982 Dalhousie Undergraduate Scholarship

## Research Grants

- 2012 - 2015 *NSF REU in Computer Vision*, as co-P.I., with Mubarak Shah, \$359,770 (Lobo's component: \$179,885)
- 2009 - 2011 *SSCI Corp, Functional Measurements*, as co-P.I., with Mubarak Shah, \$250,000 (Lobo's component: \$125,000)
- 2009 - 2012 *NSF S-STEM*, as co-P.I., with 3 others, \$599,973 (Lobo's component: \$149,000)
- 2009 - 2012 *NSF REU in Computer Vision*, as co-P.I., with Mubarak Shah, \$300,000 (Lobo's component: \$75,000)
- 2008 - 2011 *NSF CSUMS*, as co-P.I., with 4 others, \$585,198 (Lobo's component: \$80,000)
- 2007 - 2012 *NSF ITEST*, as P.I., with 3 other co-P.I.s, \$1,200,000 (Lobo's component: \$420,000)
- 2007 - 2008 *DOD DURIP*, Equipment for UAV Visual Sensing, with co-P.I. Shah, \$210,600
- 2006 - 2010 *NSF STEP*, as Senior Personnel, with 14 other senior personnel and co-P.I.s \$1,797,000 (Lobo's component: \$53,000)
- 2006 - 2009 *NSF Research Experience for Undergraduates in Computer Vision*, with Mubarak Shah. \$376,109
- 2005 - 2006 *UCF's CATSS: Augmented Reality Traffic Simulator* with Khaled Hussain, \$45,000
- 2005 - 2006 *ATI: Improving Face Detection Algorithms*, \$25,511
- 2005 - 2006 *UCF I-4 Match for ATI: Improving Face Detection*, \$17,092
- 2005 - 2006 *TASC Evaluating Event Recognition Algorithms* with Mubarak Shah, \$70,000
- 2001 - 2005 *Boeing Corporation and UCF I-4: 3-D Site Modeling from Laser Scanned Data* with Mubarak Shah, \$54,000
- 2001 - 2003 *Lockheed-Martin and UCF I-4: Advanced Image-Based Target Tracking*, with Mubarak Shah and Xin Li, \$106,000
- 2001 - 2006 *NSF Research Experience for Undergraduates in Computer Vision*, with Mubarak Shah and Takis Kasparis, \$350,000
- 2001 - 2002 *Lockheed-Martin and State of Florida: Multi-Resolution Video Tracking*, with Mubarak Shah and Xin Li, \$90,000
- 2000 - 2001 *Boeing Corporation: Feature Detection and Polygon Reduction*, with Mubarak Shah and Ratan Guha, \$84,000
- 2000 - 2001 *Harris Corporation: Image Registration Prescreening*, with Mubarak Shah and Erol Gelenbe, \$52,000
- 1999 - 2000 *State of Florida and Harris Corporation, CORSAIR*, with E. Gelenbe, F. Gomez, and M. Shah, \$50,000
- 1998 - 2002 *NSF Research Experience for Undergraduates in Computer Vision*, with Mubarak Shah and Art Weeks, \$276,000
- 1998 - 1999 *State of Florida and Harris Corporation: Advanced Image Management Systems*, with Mubarak Shah, Erol Gelenbe, Narsingh Deo, Kien Hua, M. Bassiouni, \$250,000
- 1996 - 1997 *ImageSoft Technologies Grant: Understanding Handwriting*, \$11,600
- 1996 - 1997 *DOD/Navy/NAWCTSD Grant: Visually Monitoring Dismounted Infantry*, with Mubarak Shah, \$95,321

## Research Grants (continued)

- 1995 - 1996 *NSF CISE Instrumentation: Specialized Equipment for Vision and Image Processing*, with Mubarak Shah and Takis Kasparis, \$68,000
- 1995 - 1998 *NSF Research Experience for Undergraduates in Computer Vision*, with Mubarak Shah, Kevin Bowyer and Louise Stark, \$287,980
- 1994 - 1998 *NSF Research Initiation Award*, \$100,000
- 1995 - 1996 *UCF DSR In-House Award*, \$7,500

## Publications

### Book and Book Chapters

- Haering N., and da Vitoria Lobo N., *Video Event Detection*, Kluwer Academic Publishers, 2001.
- da Vitoria Lobo N. and Tsotsos, J.K., "Computing egomotion and shape from image motion using collinear points," chapter in *Visual Form: Analysis and Recognition*, eds. Arcelli, Cordelia and Sanniti di Baja, Plenum Press 1992. Pages 175-185.

### Refereed Journals

- P. Gupta, N. Da Vitoria Lobo, J.J. Laviola Jr., "Markerless tracking and gesture recognition using polar correlation of camera optical flow", *Machine Vision and Applications Journal*, Vol. 24, Issue 3, April 2013, pp. 651-666.
- C. Anderson, N. Da Vitoria Lobo, J. Waterman, J. Roth, "Computer-aided photo identification system with an application to polar bears based on whisker spot patterns", *Journal of Mammalogy*, December 2010, Vol 91, No. 6, pp. 1350-1359.
- P. Smith, N. Da Vitoria Lobo, M. Shah, "Resolving Hand Over Face Occlusion", *Image and Vision Computing Journal*, September 2007, pp. 1432-1448.
- P. Smith, M. Shah, N. Da Vitoria Lobo, "Integrating multiple levels of zoom to enable activity analysis", *Computer Vision and Image Understanding Journal*, Vol 103, No. 1, July 2006, pp. 33-51.
- A. Wu, K. Hassan-Shafique, M. Shah, N. Da Vitoria Lobo, "Virtual Three-Dimensional Blackboard: Three-Dimensional Finger Tracking with a Single Camera", *Applied Optics*, Vol. 43 Issue 2 January 2004, pp. 379-390.
- P. Smith, M. Shah, N. Da Vitoria Lobo, "Determining driver visual attention with one camera", *IEEE Transactions on Intelligent Transportation Systems*, Vol 4, No. 4, December 2003, pp. 205-218.
- Phillips W. III, Shah M. and Da Vitoria Lobo N., "Flame Recognition in Video", *Pattern Recognition Letters*, vol. 23 (1-3), January 2002, pp 319-327.
- Wallick M., Da Vitoria Lobo N., and Shah M., "A computer Vision Framework for Analyzing Overhead and Computer Projections from Video of Lectures", *ISCA (International Society of Computers and their Applications) Journal*, Special Issue on Intelligent Systems, June 2001.

- Haering N., and Da Vitoria Lobo N., “Features and classification methods to locate deciduous trees in images”, *Computer Vision and Image Understanding*, Vol 75, Nos. 1/2, July/August 1999, pp.133-149.
- Bebis G., Georgiopoulos M., Da Vitoria Lobo N., Shah M., “Learning affine transformations”, *Pattern Recognition*, Vol 32, (1999), pp. 1783-1799.
- Kwon Y. H. and da Vitoria Lobo N., “Age classification from facial images”, *Computer Vision and Image Understanding Journal*, Vol 74, No. 1, April 1999, pp. 1-21.
- Kocak D., da Vitoria Lobo N., and Widder E., “Computer vision techniques for quantifying, tracking and identifying bioluminescent plankton”, *IEEE Journal of Oceanic Engineering*, Vol 24, No. 1, Jan 1999, pp. 81-95.
- Bebis G., Georgiopoulos M., Shah M., da Vitoria Lobo N., “Indexing based on algebraic functions of views”, *Computer Vision and Image Understanding Journal*, Vol 72, No. 3, Dec 1998, pp. 360-378.
- Myles Z. and da Vitoria Lobo N., “Recovering affine motion and defocus blur simultaneously”, *IEEE Transactions on Pattern Analysis and Machine Intelligence*, Vol 20, No. 6, June 1998, 652-658.
- Bebis G., Georgiopoulos M., da Vitoria Lobo N., “Using self-organizing maps to learn geometric hash functions for model-based object recognition”, *IEEE Transactions on Neural Networks*, Vol 9, No. 3, May 1998, pp. 560-570.
- Chen J., da Vitoria Lobo N., Hughes C.E., and Moshell M., “Real-time fluid simulation in a dynamic virtual environment”, *IEEE Computer Graphics and Applications*, May-June 1997.
- da Vitoria Lobo N. and Tsotsos J.K., “Computing egomotion and detecting independent motion from image motion using collinear points”, *Computer Vision and Image Understanding*, July 1996.
- Chen J. and da Vitoria Lobo N., “Real-time fluid modeling using Navier-Stokes equations”, *Computer Vision, Graphics and Image Processing: Graphical Modeling and Image Processing*, March 1995.
- da Vitoria Lobo N., Commentary on Wertheim’s paper. Titled “Direct perception theory needs to include computational reasoning, not extraretinal information”, *Behavioral and Brain Science*, June 1994.

### **Refereed Conferences**

- O. Oreifej, N. Da Vitoria Lobo, M. Shah, “Horizon Constraint for Unambiguous UAV Navigation in Planar Scenes”, *Proc. 2011 IEEE International Conference on Robotics and Automation*, Shanghai, China. (May, 2011).
- B. Swan, J. Godek, N. Da Vitoria Lobo, C. Katzenmeyer “Evaluation Results: High School Mathematics Dynamic Drawing and Computer Vision ITEST Program”,

- presented at the School Science and Mathematics Association (SSMA) 2010 Annual Convention, Ft. Myers, FL, 2010.
- B. Swan, C. Katzenmeyer, N. Da Vitoria Lobo, J. Godek “A program for introducing computer vision and imaging experience through high school mathematics: evaluation results from year one of an NSF funded ITEST program.” In Barnett, M. (Chair), *Improving Student Interest Toward Science: Results From National Science Foundation ITEST Program*. Symposium conducted at the meeting of the American Educational Research Association (AERA) 2010 Annual Meeting. Denver, CO. (April, 2010).
- P. Gupta, N. Da Vitoria Lobo, J. LaViola “Markerless Tracking Using Polar Correlation of Camera Optical Flow,” *Proc. IEEE Virtual Reality*, Waltham, MA, March 2010.
- B. Swan, C. Katzenmeyer, N. Da Vitoria Lobo “Measuring the impact of an NSF ITEST program to prepare learners to be intellectually prepared for a career in Computer Science”, paper presented at the 54th Annual Meeting of the Florida Educational Research Association (FERA), Orlando FL, November 2009.
- C. Schwarz, N. Da Vitoria Lobo, “The Camera-driven Interactive Table,” *Proc. IEEE Workshop on Applications of Computer Vision*, Austin, TX, Feb 2007.
- J. Prokaj, N. Da Vitoria Lobo, “Scale Space Based Grammar for Hand Detection,” in *Procs. International Workshop on Intelligent Computing in Pattern Analysis/Synthesis*, held with International Conference on Pattern Recognition, August 2006, China. Also appears as Springer Lecture Notes in Computer Science, Vol 4153/2006, pp. 17–26.
- M. B. Caglar, N. Da Vitoria Lobo, “Open Hand Detection in a Cluttered Single Image Using Finger Primitives,” in *Procs. 2nd IEEE Workshop on Vision for Human Computer Interaction*, an IEEE CVPR Workshop, New York City, June 2006. CD entry:148.
- M. B. Caglar, N. Da Vitoria Lobo, “Self Correcting Tracking for Articulated Objects,” *IEEE Workshop on Face and Gesture Recognition*, May 2006.
- Smith R.P., Shah M., da Vitoria Lobo N., “Temporal Boost for Event Recognition,” in *Procs. IEEE International Conference on Computer Vision, ICCV2005*, October 2005, Beijing.
- Smith R.P., Shah M., Da Vitoria Lobo N., “Resolving Hand over Face Occlusion,” in *Procs. IEEE Workshop on Human Computer Interface at ICCV2005*, October 2005, Beijing.
- C. Schwarz, N. Da Vitoria Lobo, “Segment-based Hand Pose Estimation,” in *Procs. Canadian Conference on Computer and Robot Vision, CRV2005*, May 2005, Victoria.
- D. Batz, M. Batz, N. Da Vitoria Lobo, M. Shah, “Visual System for Monitoring Medication Intake,” in *Procs. Canadian Conference on Computer and Robot Vision, CRV2005*, May 2005, Victoria.

- J. Garcia, N. Da Vitoria Lobo, M. Shah, J. Feinstein, "Finding Heads in Single Images," in Procs. Canadian Conference on Computer and Robot Vision, CRV2005, May 2005, Victoria.
- A. K. Levy III, N. Da Vitoria Lobo, M. Shah, "Object Tracking in Low Frame-Rate Video," in Procs. Irish Machine Vision and Image Processing Conference, IMVIP2004, Sept. 2004, Dublin, pp 174-179.
- M. Wells, N. Da Vitoria Lobo, M. Shah, "Automatic Visual Tracking for Analysis of Lifting," in Procs. Irish Machine Vision and Image Processing Conference, IMVIP2004, Sept. 2004, Dublin, pp. 104-109.
- Smith R.P., Shah M., Da Vitoria Lobo N., "Integrating and Employing Multiple Levels of Zoom for Activity Recognition", IEEE Conference on Computer Vision and Pattern Recognition, Washington, D.C., June 2004.
- Bhatt J., Da Vitoria Lobo N., Shah M., Bebis G., "Automatic recognition of a baby gesture", Proceedings of 15th IEEE International Conference on Tools with Artificial Intelligence (ICTAI), Sacramento, California, November 2003.
- Datta A., Da Vitoria Lobo N., Shah M., "Person-on-Person Violence Detection in Moving and Stationary Camera Videos", IASTED conference on Graphics and Image Processing, August 2003, Hawaii.
- Datta A., Da Vitoria Lobo N., Leeson J., "Novel Feature Vector for Image Authentication", IEEE International Conference on Multimedia and Expo, Maryland, July 2003.
- Dever J., Da Vitoria Lobo N., Shah M., "Automatic Visual Recognition of Armed Robbery", International Conference on Pattern Recognition, August 2002 - Quebec City, Canada.
- Datta A., Shah M., Da Vitoria Lobo N., "Person-on-Person Violence Detection in Video Data", International Conference on Pattern Recognition, August 2002 - Quebec City, Canada.
- Myles A., Da Vitoria Lobo N., Shah M., "Wheelchair Detection in a Calibrated Environment", Asian Conference on Computer Vision, ACCV 2002, Melbourne, Australia, Jan 2002. pp 706-712.
- Russo R., Da Vitoria Lobo N., Shah M., "A Computer Vision System for Monitoring Production of Fast Food", Asian Conference on Computer Vision, ACCV 2002, Melbourne, Australia, Jan 2002.
- Yilmaz A., Hassan-Shafique K., Da Vitoria Lobo N., Olson T., Shah M., "Target-Tracking in FLIR Imagery Using Mean-Shift and Global Motion Compensation", Workshop on Computer Vision Beyond the Visible Spectrum, with CVPR 2001, Kauai, Hawaii, Dec 2001.
- Wallick M., Da Vitoria Lobo N., and Shah M., "A System for Placing Videotaped and Digital Lectures On-line", *2001 International Symposium on Intelligent Multimedia, Video and Speech Processing*, Kowloon, Hong Kong, May 2001.

- Bracewell D.B., Da Vitoria Lobo N., Shah M., "Human identification through body measurements", *Proceedings of Computers and Their Applications, ISCA*, Seattle, WA, March 2001, pp.383-386.
- Phillips W., Shah M., Da Vitoria Lobo N., "Flame Recognition in Video", *Proc. IEEE Workshop on Applications of Computer Vision*, Palm Springs, CA, Dec 2000, pp.224-229.
- Smith R.P., Shah M., Da Vitoria Lobo N., "Monitoring Head/Eye Motion for Driver Alertness with One Camera", *International Conference on Pattern Recognition*, Spain, Sept 2000.
- Wallick M., Da Vitoria Lobo N., Shah M., "A computer vision framework for analyzing projections from video of lectures", *Ninth International Conference on Intelligent Systems: Artificial Intelligence Applications for the New Millennium*, Louisville, KY, June 2000.
- Wu A., Shah M., Da Vitoria Lobo N., "A virtual 3D blackboard: 3D tracking using a single camera", *Fourth International Conference on Automatic Face and Gesture Recognition*, Grenoble, France, March 2000.
- Haering N., Da Vitoria Lobo N., Qian R., Sezan I., "A Framework for designing Event Detectors", *Fourth Asian Conference on Computer Vision*, Taipei, Taiwan, Jan 2000.
- Bebis G., Georgiopoulos M., Shah M., da Vitoria Lobo N., "Using algebraic functions of views for indexing", *International Conference on Computer Vision*, Bombay, India, January 1998.
- Haering N., Myles Z., da Vitoria Lobo N., "Locating deciduous trees", *IEEE Workshop on Content-based Access of Image and Video Libraries*, San Juan, Puerto Rico, June 1997.
- Uhl R. and da Vitoria Lobo N., "A framework for recognizing a facial image from a police sketch", *IEEE Conference on Computer Vision and Pattern Recognition*, San Francisco, June 1996,
- Myles Z. and da Vitoria Lobo N., "Recovering affine motion and defocus blur simultaneously", *IEEE Conference on Computer Vision and Pattern Recognition*, San Francisco, June 1996,
- Bebis G., Georgiopoulos M., da Vitoria Lobo N. and Shah M., "Learning affine transformations of the plane for model-based object recognition", *International Conference on Pattern Recognition*, Vienna, Austria, August 1996.
- Kocak D., da Vitoria Lobo N., and Widder E., "Tracking and mapping underwater bioluminescent displays using snakes", *MTS/IEEE Conference on OCEANS*, September 1996.
- Bebis G., Georgiopoulos M., da Vitoria Lobo N., "Learning geometric hashing functions for model-based object recognition", *International Conference on Computer Vision*, Cambridge, MA, June 1995.
- Mall H. and da Vitoria Lobo N., "Determining wet surfaces from dry", *International Conference on Computer Vision*, Cambridge, MA, June 1995.

- Uhl R., da Vitoria Lobo N. and Kwon Y., "Recognizing police sketches of faces", *Workshop on Applications of Computer Vision*, Sarasota, FL, December 1994, 129-137.
- Kwon Y. and da Vitoria Lobo N., "Detecting faces in images using templates", *International Conference on Pattern Recognition*, Israel, October 1994, 764-767.
- Macchi W. and da Vitoria Lobo N., "Modeling rough interreflections", *International Conference on Pattern Recognition*, Israel, October 1994, 602-605.
- Kwon Y. and da Vitoria Lobo N., "Age classification from facial images", *IEEE Conf on Computer Vision and Pattern Recognition*, Seattle, June 1994, 762-767.
- Kwon Y. and da Vitoria Lobo N., "Age classification from facial feature analysis," *Conference on Intelligent Robots and Computer Vision*, Boston, 1993 (refereed on abstract).
- da Vitoria Lobo N. and Tsotsos J.K., "Using collinear points to compute egomotion and detect nonrigidity," *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, Maui, Hawaii, June 1991, pp. 344-350.
- da Vitoria Lobo N. and Tsotsos, J.K., "Computing egomotion and shape from image motion using collinear points," *International Workshop on Visual Form*, Capri, Italy, May 1991.
- da Vitoria Lobo N. and Tsotsos, J.K., "The perceptual mechanisms of telling where one is heading and where objects move independently," *Proceedings of the Conference of the Cognitive Science Society*, Chicago, August 1991, pp. 43-48.
- da Vitoria Lobo N. and Tsotsos J.K., "Towards recognition of independent motion in optical flow," *Proceedings of the IJCAI-91 Workshop on Dynamic Scene Understanding*, Sydney, Australia, August 1991.
- da Vitoria Lobo N. and Tsotsos J.K., "Shape from binocular disparity and incomplete knowledge of baseline parameters," *Proceedings of the European Conference on Artificial Intelligence*, Stockholm, August 1990, pp. 201-203.
- da Vitoria Lobo N. and Tsotsos J.K., "Extracting qualitative shape from image motion: applications to stereo-pairs," *Proceedings of the American Association for Artificial Intelligence Workshop on Qualitative Vision*, Boston, July 1990, pp. 36-40.
- da Vitoria Lobo N., "Rigidity and Three-Dimensional Motion from Binocular Image Motion," *Proc. of Vision Interface-90*, Halifax, May 1990, pp. 194-196.
- da Vitoria Lobo N., "Towards Shape from Image Motion," *Proceedings of the Conference on Sensing and Reconstruction of Three-Dimensional Objects and Scenes*, Santa Clara, California, February 1990, pp. 72-79.

### **Other Publications**

- da Vitoria Lobo N., Uhl R., Kwon Y. (1995), "A Framework for Processing Face Images," *NSF Vision Conference in Pakistan* (invited speaker), Islamabad, Pakistan, January 1995.



- da Vitoria Lobo N. (1993), “Computing egomotion, shape, and detecting independent motion from image motion,” Ph.D. Thesis, Dept. of Computer Science, Univ. of Toronto.
- da Vitoria Lobo N. and several others (1991), “Promising Directions in Active Vision”, Document of the *Active Vision Workshop*, sponsored by the *National Science Foundation*, Chicago, August 1991.
- da Vitoria Lobo N. (1991), “Identifying regions where the rigidity assumption fails in mobile robotics (Abstract only)” *Proceedings of the Conference of the Institute for Robotics and Intelligent Systems*, Vancouver, Canada, June 1991.
- da Vitoria Lobo N. and Tsotsos J.K. (1990), “Computing Egomotion and Shape from Image Motion Using Collinear Points,” *RBCV-Technical Report-90-37*, Dept. of Computer Science, Univ. of Toronto, December 1990.
- da Vitoria Lobo N. and Tsotsos J.K. (1989), “Shape Information from Image Motion: What Can We Compute from Three Points?” *RBCV-Technical Report-89-32*, Dept. of Computer Science, Univ. of Toronto, December 1989.

## Patents

- Da Vitoria Lobo N., Gupta P., LaViola J. “Tracking Using Opposing Cameras” , filed full U.S. patent application, Fall 2012.
- Da Vitoria Lobo N., Caglar M.B., “Self Correcting Tracking of Moving Objects in Video” , U.S. Patent Number 7,983,448 B1, issued July 2011.
- Smith P., Shah M., da Vitoria Lobo N., “System for monitoring Driver Alertness” , U.S. Patent issued Spring 2005.
- da Vitoria Lobo N. and Kwon Y., “Age classification from facial images” , U.S. Patent issued July 1998.
- da Vitoria Lobo N. and Kwon Y., “Face Detection Using Templates” , U.S. Patent Number 5,835,616 issued Nov 1998.
- da Vitoria Lobo N. and Chen J.(1993), “Real-time fluid modeling using Navier-Stokes equations” , U.S. Patent Number 5,537,641, issued July 1996.

## Ph.D. Students Graduated

- Oreifej Omar, Topic: Robust Subspace Estimation Using Low-rank, Spring 2013. (Co-advised with Dr. Mubarak Shah). Currently Post-doc at UC Berkeley CA.
- Smith Raymond Paul, Topic: Activity Recognition, Fall 2005. (Co-advised with Dr. Mubarak Shah). Currently at Northrop Grumman, Reston VA.
- Myles Zarina, Topic: Defocussed Motion, Fall 2004. Currently at Self Realization Fellowship Campus, Los Angeles, CA.
- Haering Niels, Topic: Designing Event Detectors for Video, Fall 1999. Currently at Object Video Vision, Inc., Reston, VA.
- Chen Jim Xiong, Topic: Physics based fluid modeling, April 1995. Currently tenured associate professor at George Mason University.

## **Thesis M.S. Students Graduated**

Gupta Prince, “Markerless Tracking using Polar Correlation of Camera Optical Flow”, Spring 2010. Currently employed by QualComm.

Kocak Donna, “Quantifying, tracking and identifying bioluminescent plankton using active contour models”, April 97. Currently employed at Harbor Branch Oceanographic Institute, Fort Pierce.

Ramsey Sean, “New concepts in grasping”, July 95. Deceased (Sept 95), was employed at NASA at time of death.

Uhl Robert, “Recognizing police facial sketches”, December 94. Currently employed at Harris Corp., Melbourne.

Kwon Young, “Age classification from facial images”, December 93. Currently employed at Lockheed Martin, Orlando.

## **B.S. Honors Theses Supervised**

Schwarz Christopher, “Hand Pose Detection”, Spring 2006.

Prokaj Jan, “Scale Space Grammar for Hand Detection”, Spring 2006.

Dever Jaime, “Recognition of Armed Robbery”, Fall 2005.

Wallick Michael, “Distance Education System”, Spring 2001.

Macchi Warren, “Roughness from Interreflections”, Spring 1994.

## **Professional Activities**

Organizer and co-Instructor for Junior Knights, UCF EECS Programming Outreach to High School students, 2011-2013.

Reviewer for major journals and conferences.

Associate Editor, Machine Vision and Applications Journal, 2009-2012

Program committee member, IEEE Conf. on Computer Vision and Pattern Recognition, June 2007.

Publications and Finance Chair, IEEE Workshop on Applications of Computer Vision, Austin, TX, February 2007.

Publications and Finance Chair, IEEE Workshop on Motion and Video Computing, Austin, TX, February 2007.

Program committee member, IEEE Conf. on Computer Vision and Pattern Recognition, New York, June 2006.

Co-Organizer, ARDA Evaluation of Event Recognition Algorithms, 2006.

Co-Organizer, Workshop on Evaluating Event Recognition Algorithms, San Diego, June 2005.

Program co-Chair, IEEE Workshop on Applications of Computer Vision, Orlando, December 2002.

Program committee member and Local Arrangements Chair, IEEE Workshop on Motion and Video Computing, Orlando, December 2002.

Program committee member, Symposium on the Future of Information Processing, University of Central Florida, October 2000.

Program committee member, IEEE Computer Vision and Pattern Recognition Conf., Santa Barbara, June 98.

Program committee member, IEEE Nonrigid and Articulated Motion Workshop, Puerto Rico, June 97.

Program committee member, Vision Interface, Canada, May 1997.

Program committee member, Workshop on Physics-based Modeling for Vision, Cambridge, MA, June 1995.

Invited Participant, *National Science Foundation* Workshop on Directions for Active Vision, Chicago, August 1991.

Faculty Advisor to UCF Student Chapter of ACM, 1995-2006