DAVID J. KRIEGMAN

Computer Science & Engineering
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Education

Stanford University
M.S., Electrical Engineering, June, 1984.
Ph.D., Electrical Engineering, December, 1989.
Dissertation: *Object Classes and Image Contours in Model-Based Vision.*
Advisor: Thomas O. Binford.

Princeton University
B.S.E., Electrical Engineering and Computer Science, June, 1983.
Summa cum laude.

Awards and Honors

Connect Most Innovative New Product Award for TAAZ.COM, 2008.

Marr Prize Honorable Mention (ICCV), 2007.

Tech Coast Angels Quick Pitch, Best Presntation, 2007.

Paper of the Year Award, Journal of Structural Biology, 2003.

Willett Faculty Scholar Award, 2002.

Best Paper Award, European Conference on Computer Vision, 1998.

Best Paper Award, IEEE Conference on Computer Vision and Pattern Recognition, 1996.

Elected Golden Core Member of IEEE Computer Society, 1996.

Semi-finalist for Best Paper Award, IEEE Conference on Robotics and Automation, 1994.

National Science Foundation Young Investigator Award (NYI), 1992.

Hertz Foundation Graduate Fellowship.

Charles Ira Young Award for Electrical Engineering Research at Princeton.

Member of Phi Beta Kappa and Tau Beta Pi.

Experience

Professor, University of California, San Diego, Computer Science & Engineering, 2002–present.

Founder/CEO/CSO/Director, Taaz, Inc., 2007-present.

Partner, Kriegman-Belhumeur Vision Technologies, LLC 2004-present.

Associate Professor, University of Illinois, Urbana-Champaign, Computer Science Department, Beckman Institute, August 1998 – August, 2002.

Associate Professor, Yale University, Departments of Electrical Engineering and Computer Science, Center for Systems Science, Center for Computational Vision and Control, July 1994 – August 1998.

Assistant Professor, Yale University, Departments of Electrical Engineering and Computer Science, Center for Systems Science, January 1990–June 1994.

Visiting Professor, California Institute of Technology, Summer 1993, Spring 1994.

Research Assistant, Stanford University, Robotics Laboratory, 1985–1989.

Visiting Scientist, MIT Artificial Intelligence Laboratory, Summer 1984.

Technical Associate, Bell Laboratories, Digital Signal Processing Group of the Specialized Processor Hardware Department, Summers 1981, 1982.

Professional Activities

Organizing Committee, National Academies (NRC) Workshop on Automating Image and Video Analysis for Fisheries Stock Assessment, 2014.

NOAA NMFS Automated Image Analysis Strategic Initiative, 2013–present.

DARPA ISAT Technology Affordances for Civilian Transparency (TACT), 2013

Steering Committee: IEEE PAMI Technical Committee, 2009-present.

Guest Editor: IEEE Transactions on Pattern Analysis and Machine Intelligence, Special Issue on Real World Face Recognition, 2011.

Advisory Board: IEEE Transactions on Pattern Analysis and Machine Intelligence, 2009-present.

Search Committee: IEEE Computer Society Search for Editor-in-Chief of IEEE TPAMI, 2012

Editor-in-Chief: IEEE Transactions on Pattern Analysis and Machine Intelligence, 2005–2008.

Associate Editor-in-Chief: IEEE Transactions on Pattern Analysis and Machine Intelligence, 2001 – 2004

Associate Editor: IEEE Transactions on Robotics and Automation, 2000 – 2003.

Associate Editor: IEEE Transactions on Pattern Analysis and Machine Intelligence, 1997 – 2000.

Guest Editor: Computer Vision and Image Understanding, Special Issue on Face Recognition, 2003.

General Chair: IEEE Conference on Computer Vision & Pattern Recognition, 2005.

Co-chair: IEEE Workshop on Integration of Appearance & Geometric Methods in Object Recognition, 1999.
Block Island Workshop on Vision and Control, 1997.

Program Chair: IEEE Conference on Computer Vision and Pattern Recognition, 2000.

Program Area Chair: Asian Conference on Computer Vision, 2014.

Program Area Chair: International Conference on Computer Vision, 2009, 2011, 2013.

Program Area Chair: IEEE Conference on Computer Vision and Pattern Recognition, 1999, 2001, 2003, 2010.

Program Area Chair: European Conference on Computer Vision, 2012.

Program Committee:
ICCV Workshop on Underwater Vision, 2013.
IEEE Workshop on Large Scale Visual Commerce, 2013.
IEEE Color and Photometry in Computer Vision, 2011.
IEEE International Workshop on Analysis and Modeling of Faces and Gestures, 2005, 2007
European Conference on Computer Vision, 2004.
Computer Vision & Pattern Recognition for Human Computer Interaction, 2003,2006
International Conference on Computer Vision (ICCV) 1995, 1999, 2001, 2003, 2005, 2007.
Workshop on Photometric Analysis for Computer Vision (PACV), 2007
International Conference on Pattern Recognition (ICPR) 2002, 2004
IMA Conference on the Mathematics of Surfaces, 2000, 2003.
IEEE Conference on Face and Gesture Recognition (FG) 2002, 2012.
IEEE Int. Workshop on Analysis and Modeling of Faces & Gestures, 2005
International Conference Robotics and Automation (ICRA) 2001.
IEEE Workshop on Identifying Objects Across Variations in Lighting: Psychophysics & Computation, 2001.
IEEE Workshop on Models versus Exemplars in Computer Vision, 2001.
Workshop on the Algorithmic Foundations of Robotics (WAFR) 2000.
IEEE Conf. on Computer Vision and Pattern Recognition (CVPR) 1997, 1998,2006, 2007
American Association for Artificial Intelligence (AAAI) 1996.
Intelligent Robots and Systems Conf. (IROS), 1994.

Awards Committee: IEEE Conference on Computer Vision & Pattern Recogniton, 2004.

DARPA ISAT Study on Surveillence, 2007.

Air Force Computer Vision Futures Study, 2007.

National Science Foundation Robotics Council: Member 2000–2002.

NSF Panels (1993-2010)- Eleven panels including
Small Business Innovation Research (SBIR).
Grant Review.
Research Initiation Awards (RIA).
CAREER.
ITR
Research Experience for Undergraduates (REU).

National Institutes of Health, NIGMS Special Emphasis Panel, 2002.

Reviewer: Algorithmica, ACM Transactions on Graphics, Artificial Intelligence Journal, ASME Journal of Engineering for Industry, SIGGRAPH, SIGGRAPH ASIA, IEEE/ASME Transactions on Mechatronics, Computer Vision, Graphics and Image Processing/ CVIU, Discrete and Computational Geometry, IEE Proceedings – Vision, Image and Signal Processing IEEE Computer Magazine, IEEE Control Systems Magazine, IEEE Signal Processing Letters, IEEE Trans. Image Processing, IEEE Trans. on Robotics and Automation, IEEE Trans. on Pattern Analysis and Machine Intelligence, IEEE Trans. on Systems, Man, and Cybernetics, Image and Vision Computing, International Journal of Computer Vision, Int. Journal of Computational Geometry and Applications, International Journal of Robotics Research, International Symposium on Wearable Computers (ISWC), Journal of Mathematical Imaging and Vision, Journal of the Optical Society of America - A, Journal of Structural Biology, Pattern Recognition Letters, Vision Research, IEEE Conf. on Robotics and Automation, IEEE Conf. on Computer Vision and Pattern Recognition, IEEE Intelligent Vehicle Symposium, IEEE Workshop on Visual Motion, International Conference on Computer Vision, International Joint Conf. on Artificial Intelligence, International Joint Conf. on Biometrics, Army Research Office, Brazilian Government (FAPESP), Ecole Polytechnique Federale De Lausanne, Israel Science Foundation, National Science Foundation, National Sciences and Engineering Research Council of Canada, United States-Israel Binational Science Foundation, UK Economic & Social Research Council.

Senior Member IEEE, Member ACM.

Grants

1. **An Ultra-high Spatial and Temporal Resolution Underwater Camera System for Observing Microbial Behavior In Situ**, J. Jaffe, P. Franks, D. Kriegman, Keck Foundation, 2012.

2. **Computer Vision Coral Ecology: Cyber-Enabled Image Classification for Rapid, Large Scale, Automated Monitoring of Climate Change Impacts on Coral Reefs**, B. Gregory Mitchell, David J. Kriegman, Serge J. Belongie, National Science Foundation, 2009.

3. **Remote Multi-Modal Biometrics for Maritime Domain**, ONR MURI, UCSD Subaward D. Kriegman, S. Belongie, 2008.

4. **FaceFX: Easy, Effective, Online Photo Enhancement**, vonLiebig Center for Entrepreneurism and Technology Advancement, 2007.

5. **3-D Human Body Tracking from Video**, D. Kriegman, Honda Research Institute.

6. **Software for Processing Human Faces in Images and Videos**, vonLiebig Center for Entrepreneurism and Technology Advancement, 2006.

7. **IGERT: Vision and Learning in Humans and Machines**, G. Cotrell, G. Boynton, V. de Sa, K. Dobkins, D. Kriegman, NSF, 10/03-9/08.

8. **FWGrid: A Research Infrastructure with Fast Wireless, Wired, Compute, and Data Infrastructure for Next Generation Systems and Applications**, A. Chien, D. Kriegman, J. Pasquale, S. Savage, NSF Infrastructure Grant, 9/03–8/08.

9. **Modeling, Tracking and Recognizing Faces in Video Sequences**, D. Kriegman, Honda Research Institute and U.C. MICRO Program/21/03-12/31/04, $102,000.

10. **Complex Reflectance, Texture and Shape: Methods and Representations for Object Modelling**, P. Belhumeur, D. Kriegman, NSF, 7/1/03-6/30/06.

11. **Instrumentation for Empirical Studies in the Modeling of Visual Appearance**, P. Belhumeur, D. Kriegman, NSF equipment, 9/2002, 3 yrs..

12. **NSF-CONACyT: Collaborative Research on Sensor-Based Robotics**, S. Hutchinson, D. Kriegman, NSF, 3/15/02–2/28/05.

13. **Lighting Priors and Face Recognition**, D. Kriegman, Honda Research, 5/2001.

14. **Active Information Spaces Based on Ubiquitous Computing**, R. Campbell, D. Kriegman, K. Nahrstedt, D. Reed, R. Kravitz, NSF ITR, 9/2000-8/2005.

15. **Multimodal Human Computer Interaction: Toward a Proactive Computer**, T. Huang, D. Brown, D. Kriegman, G. McConkie, D. Roth, NSF ITR, 9/2000-8/2005.

16. **Complex Interactions with the Visual World: Capturing, Understanding, and Predicting Appearance**, subcontract from Yale under NSF ITR grant, 9/2000-8/2002.

17. **An Integrated System for Molecular Microscopy**, B. Carragher, C. Potter, R. Milligan, D. Kriegman, Z.P. Liang, NIH, 6/00-5/04.

18. **New Shape & Reflectance Models for Vision and Image-based Rendering**, D. Kriegman, NSF, 10/2000-6/2003.

19. **An Intelligent Microscope for Transmission Electron Microscopy**, C. Potter, B. Carragher, D. Kriegman, NSF, 10/1/99-9/30/02.

20. **Environment-Independent Perception and Navigation for Tactical Mobile Robots: A Diktiometric Approach**, DARPA, PI with G. Hager, D. McDermott, 2 yrs.

21. **Visual Tracking as a Feedback System**, Army Research Office, 3 yrs., Co-PI with G. Hager.

22. **Domain Independent Vision-Based Navigation**, NSF, PI with G. Hager, 1997, 3 yrs..

23. **Next Generation Vision-Based Control System (DURIP)**, Army Research Office, Co-PI with A.S. Morse, G. Hager.

24. **Computational Approaches to Shape Representation and Recognition in Humans and Machines**, Office of Naval Research, PI with M. Tarr (Brown), July 1, 1995, 1 yr.

25. **Modelling and Recognition of Arbitrary Curved Objects from Image Contours**, National Science Foundation, Co-PI with J. Ponce, (U. Illinois), 1993, 3 yrs.

26. **Computational Approaches to Human Shape Representation**, Office of Naval Research, Co-PI with M. Tarr, 1993, 2 yrs.

27. **NSF Young Investigator Award**, National Science Foundation, 1992–1998.

28. **Practical Algebraic Techniques for Robotics and Computer Vision**, National Science Foundation, Co-PI with J. Ponce and S. Hutchinson (U. Illinois), June 1992.

29. **Equipment for Empirical Verification of Sensor-Based Decision Making: Representation, Uncertainty, and Action**, National Science Foundation, PI, with G. Hager, 1991.

30. **Representations and Algorithms for Recognizing and Locating Three-Dimensional Objects from Monocular Images**, National Science Foundation, Co-PI with J. Ponce, (U. Illinois), 1991, 2 yrs.

University Activities

Instructor (University of California, San Diego):
CSE190/CSE152, *Introduction to Computer Vision*, 2003-present,
CSE190, *Biometrics*, 2006,2010-2012
CSE252a, *Computer Vision I*, 2004-present.
CSE252b,*Computer Vision II*, 2013.
CSE291, *Image-based Modeling and Rendering*, 2003.
CSE291, *Vision in Humans and Machines*, 2005, 2007.

Instructor (University of Illinois):
CS319, *Advanced Topics in Computer Graphics*, 2000.
CS348, *Introduction to Artificial Intelligence*, 2000, 2001.
CS443/ECE449 *Computer Vision*, 1999, 2001.
CS491-KP, *Topics in Comuter Vision Seminar*, 2001, 2002.
CS497DJK, *Pattern and Object Recognition*, 1998, 1999, 2002.

Instructor (Yale):
EE411a/CS471a, *An Analytical Introduction to Robotics*, Autumn 1990–1998.
EE458/EAS892, *Pattern and Object Recognition*, 1995, 1997.
EE455/CS476, *Computer Vision*, 1997.
EE348/CS338, *Digital Systems*, 1995,1996.
EE325, *Electronic Circuits*, 1993.
EAS245, *Elementary Electronics*, 1990–92.

Patents

1. "*System and method for providing and modifying a personalized face chart*," D. Fidaleo, B. Foust, J. Neuman, S. Mallick, K. Barnes, D. Kriegman, D, US patent 8,550,818, 2013.
2. "*System and Method for Providing a Personalized Face Chart*," S.P. Mallick, K. Barnes, M. Ciafardini Kirkland, K. Dougherty, D. John, D. Kriegman, V. Patel, US patent 8,523,570, 2013.
3. "*Systems and methods for simulating accessory display on a subject*," M. Flagg, S.P. Mallick, D. Kriegman, patent pending, 4/20/2012.
4. "*System and method for changing hair color in digital images*," S.P. Mallick, H. Qiao, D. Kriegman, patent pending, 9/24/2010.
5. "*System and Methods for a Embedded Virtual Makeover Try-on Tool*," K. Barnes, J. Dimm, D. Kriegman, S. Mallick, V. Patel, patent pending, 7/21/2009.
6. "*System and Method for Creating and sharing personalized Virtual Makeovers*," S.P. Mallick, D. Kriegman, K. Barnes, patent pending, 3/17/08.
7. "*Method of Monetizing Online Personalized Beauty Prodcut Selections*," D. Kriegman, K. Barnes, S.P. Mallick, D. John, V. Patel, patent pending, 3/17/08.
8. "*Method for Editing Multi-Channel Images*," S.P. Mallick, T. Zickler, D. Kriegman, P. Belhumeur, US 7,860,306, Dec. 28 2010
9. "*Methods for Identifying, Separating and Editing Reflection Components in Multi-Channel Images and Videos*," S.P. Mallick, T. Zickler, D. Kriegman, P. Belhumeur, US 7,689,035, Mar. 30, 2010.
10. "*Illumination Based Image Synthesis*," P.N. Belhumeur, D.J. Kriegman, A.S. Georghiades, US patent 6,697,518, Feb. 24, 2004.
11. "*A Method of Face Recognition Using Class Specific Linear Projection*," provisional patent.

Publications

I: Books and Chapters

1. J. Ho, D. Kriegman, "*On the Effect of Illumination and Face Recognition*, **Face Processing: Advanced Modeling and Methods**, R. Chellappa, W. Zhao, Editors, 2006, pp. 339–384.
2. D. Kriegman, "*Vision Sensors for Robots*," in **Encyclopedia of Physical Science and Technology**, Academic Press, 3rd edition, Vol. 17, 2002, pp. 475–488.
3. D. Kriegman, G. Hager, A.S. Morse, Editors, **The Confluence of Vision and Control**, LNCIS series, Springer-Verlag, July, 1998.
4. D. Kriegman, P. Belhumeur, A Georghiades, "*Representations for Recognition Under Variable Illumination*," in **Shape, Contour and Grouping in Computer Vision**", D.A. Forsyth, J.L. Mundy, V. Gesu, R. Cipolla (Eds), Springer-Verlag, 1999, pp. 95–131.
5. P. Belhumeur, D. Kriegman, A. Yuille, "*Shadows, Shading, and Projective Geometry*," in **Shape, Contour and Grouping in Computer Vision**", D.A. Forsyth, J.L. Mundy, V. Gesu, R. Cipolla (Eds), Springer-Verlag, 1999, pp. 132-153.
6. J. Ponce, D. Kriegman, S. Petitjean, S. Sullivan, G. Taubin, B. Vijayakumar, "*Representations and Algorithms for 3D Curved Object Recognition*," in **Three-Dimensional Object Recognition Systems**, A. Jain and P. Flynn, eds., Elsevier Press, 1993, pp. 327–352.
7. J. Ponce, D. Kriegman, "*Elimination Theory and Computer Vision: Recognition and Positioning of Curved 3D Objects from Range, Intensity, or Contours*," in **Symbolic and Numerical Computation for Artificial Intelligence**, B. Donald, D. Kapur, J. Mundy, eds., Academic Press, 1992, pp. 123–146.
8. J. Ponce, D. Kriegman, "*Toward 3D Curved Object Recognition from Image Contours*," in **Geometric Invariance in Computer Vision**, J. Mundy and A. Zisserman, eds., MIT Press, 1992, pp. 408–439.

II: Journal Articles

9. M. Balasubramanian, E. Arias-Castro, F. Medeiros, D. Kriegman, C. Bowd, R. Weinreb, M. Holst, P. Sample, and L. Zangwill, "*Detecting Glaucoma Progression from Localized Rates of Retinal Changes in Parametric and Nonparametric Statistical Framework with Type I Error Control—,*" Investigative Opthalmology and Visual Science, accepted, in press, 2013.
10. P. Belhumeur, D. Jacobs, D. Kriegman, N. Kumar, "*Localizing Parts of Faces Using a Consensus of Exemplars,*" IEEE Transactions on Pattern Analysis and Machine Intelligence, Invited to Special Issue on Best Papers from CVPR 2012, Dec. 2013, pp. 2930 - 2940.
11. M. Balasubramanian, D. Kriegman, C. Bowd, M. Holst, R. Weinreb, P. Sample, and L. Zangwill, "*Localized Glaucomatous Change Detection within the Proper Orhogonal Decomposition Framework*," **Investigative Ophthalmology & Visual Science**, 53(7): 3615-3628, 2012.
12. S. Magda, D. Kriegman, P. Belhumeur, "*Photometric Ranging of Surfaces with Complex Reflectance*," **International Journal of Computer Vision,** 2007, submitted.
13. M.K. Chandraker, S. Agarwal, D.J. Kriegman, S. Belongie, "Globally Optimal Algorithms for Stratified Autocalibration, **International Journal of Computer Vision**, 90(2):236-254, November 2010.
14. N. Joshi, W. Matusik, A.E. Adelson, D. Kriegman, "*Personal Photo Enhancement using Prior Images*," **ACM Transactions on Graphics**, 29(2), March 2010.
15. J. Wills, S. Agarwal, D. Kriegman, S. Belongie, "*Toward a Perceptual Space for Reflectance*," **ACM Transactions on Graphics**, 28(4) Aug. 2009, pp. 103:1–103:15.
16. F. Kahl, S. Agarwal, M. Chandraker, D. Kriegman, and S. Belongie, "*Practical Global Optimization for Multiview Geometry,*" **International Journal of Computer Vision,** 79(3) Sept. 2008, pp. 271–284.
17. T. Zickler, S. Mallick, D. Kriegman, P. Belhumeur, "*Color Subspaces as Photometric Invariants*," **International Journal of Computer Vision,** 79(1) Aug. 2008, pp. 13–30.
18. S. Romdhani, J. Ho, T. Vetter, D. Kriegman, "*Face Recognition using 3-D Models: Pose and Illumination*," **Proceedings of the IEEE**, 94(11), Nov. 2006, pp. 1977–1999.
19. Y. Furukawa, A. Sethi, J. Ponce, D. Kriegman, "*Robust Structure and Motion from Outlines of Smooth Curved Surfaces*, **IEEE Transactions on Pattern Analysis and Machine Intelligence**, 29(2), Feb. 2006, pp. 302-315.
20. K.C. Lee, J. Ho, M.H. Yang, D. Kriegman, "*Visual Tracking and Recognition Using Probabilistic Appearance Manifolds*," **Computer Vision and Image Understanding**, 99(3), 2005, pp. 303–331.
21. S.P. Mallick, B. Carragher, C.S. Potter, D.J. Kriegman, "*ACE: Automated CTF Estimation*," **Ultramicroscopy**, August 2005, pp. 8–29.
22. K.C. Lee, J. Ho, D. Kriegman, "*Acquiring Linear Subspaces for Face Recognition under Variable Lighting*," **IEEE Transactions on Pattern Analysis and Machine Intelligence**, May, 2005, pp. 684–698.
23. A. Sethi, D. Renaudie, D. Kriegman, J. Ponce, "*Curve and Surface Duals and the Recognition of Curved 3D Objects from their Silhouettes*," **International Journal of Computer Vision**, 58 (1), June 2004, pp. 73–86.
24. S. Mallick, Y. Zhu, D. Kriegman, "*Detecting Particles in Cryo-EM Micrographs using Learned Features*," **Journal of Structural Biology**, 145(1), January, 2004, pp. 52–64.
25. Y. Zhu, B. Carragher, R. Glaeser, D. Fellmann, C. Bajaj, M. Bern, F. Mouch, F. de Haas, R.J. Hall, D. Kriegman, S. Ludtke, S. Mallick, P. Penczek, A. Roseman, F. Sigworth N. Volkmann, C. Potter, "*Automatic Particle Selection: Results of a Comparitive Study*," **Journal of Structural Biology**, 145(1), January, 2004, pp. 3–14.
26. T. Zickler, P. Belhumeur, D. Kriegman, *Helmholtz Stereopsis: Exploiting Reciprocity for Surface Reconstruction*, **International Journal of Computer Vision**, Invited by guest editors to Special Issue on Multi-view Modeling and Rendering of Visual Scenes," 49(2), September, 2002, pp. 215–227.
27. Y. Zhu, G. Xu, D. Kriegman, "*A Real-Time Approach to the Spotting, Representation and Recognition of Hand Gestures for Human-Computer Interaction*," **Computer Vision and Image Understanding**, 85(3), March 2002, pp. 189–208.

28. M.H. Yang, D. Kriegman, N. Ahuja, "*Detecting Faces in Images: A Survey*," **IEEE Transactions on Pattern Analysis and Machine Intelligence**, 24(1), January, 2002, pp. 34–58.

29. M.H. Yang, D. Kriegman, N. Ahuja, "*Face Detection Using Multimodal Density Models*," **Computer Vision and Image Understanding**, Vol. 84, 2001, pp. 264–284.

[1] 30. Y. Zhu, B. Carragher, D. Kriegman, R. Milligan, C. Potter, "*Automated Identification of Filaments in Cryoelectron Microscopy Images*," **Journal of Structural Biology**, Vol. 135, 2001, pp. 302–312.

31. D. Kriegman, P. Belhumeur, "*What Shadows Reveal About Object Structure*," **Journal of the Optical Society of America - A**, 18(8), August, 2001, pp. 1804–1813.

32. M.J. Tarr, D. Kriegman, "*What defines a view?*," **Vision Research**, 41(15), July, 2001, pp. 1981–2004.

33. A. Georghiades, P. Belhumeur, D. Kriegman, "*From Few to Many: Illumination Cone Models for Face Recognition under Variable lighting and Pose*," **IEEE Transactions on Pattern Analysis and Machine Intelligence**, June, 2001, 643–660.

34. B. Carragher, N. Kisseberth, D. Kriegman, R. Milligan, C. Potter, J. Pulokas, A. Reilein, "*Leginon: Automated Acquisition of Images from Vitreous Ice Specimens,*" **Journal of Structural Biology**, Vol. 132, pp. 33-45, 2000.

35. P. Belhumeur, D. Kriegman, A. Yuille, "*The Generalized Bas-Relief Ambiguity*," **International Journal of Computer Vision**, 35(1), 1999, pp. 33–44.

36. B. Vijayakumar, D. Kriegman, J. Ponce, "*Invariant-Based Recognition of Complex Curved 3-D Objects from Image Contours*," **Computer Vision and Image Understanding** (formerly CVGIP and CVGIP:IU), 72(3), Dec. 1998, pp. 287–303.

37. P. Belhumeur, D. Kriegman, "*What is the Set of Images of an Object Under All Possible Lighting Conditions?*," **International Journal of Computer Vision**, 28(3), 1998, pp. 245–260.

38. C.J. Taylor, D. Kriegman, "*Vision-Based Motion Planning and Exploration for Mobile Robots*," **IEEE Transactions on Robotics and Automation**, 14(3), June 1998, 417-426.

39. D. Kriegman, "*Let Them Fall Where They May: Capture Regions of Curved Objects and Polyhedra*," **International Journal of Robotics Research**, 16(4), Aug. 1997, pp. 448–472.

40. P. Belhumeur, J. Hespanha, D. Kriegman, "*Eigenfaces vs. Fisherfaces: Recognition Using Class Specific Linear Projection*," **IEEE Transactions on Pattern Analysis and Machine Intelligence**, Special issue on face recognition, July 1997, pp. 711–720.

41. T. Joshi, B. Vijayakumar, D. Kriegman, J. Ponce, "*HOT Curves for Modelling and Recognition of Smooth Curved 3D Shapes*," **Image and Vision Computing**, Invited for Promising Directions Track, 15(7), July 1997, 479–498.

42. A. Rao, D. Kriegman, K. Goldberg, "*Complete Algorithms for Feeding Polyhedral Parts using a Pivoting Gripper*," **IEEE Transactions on Robotics and Automation**, 12(2), Apr. 1996, pp. 331–342.

43. C.J. Taylor, D. Kriegman, "*Structure and Motion from Line Segments in Multiple Images*," **IEEE Transactions on Pattern Analysis and Machine Intelligence**, 17(10), Nov. 1995, pp. 1021–1032.

44. G. Taubin, F. Cukierman, S. Sullivan, J. Ponce, D. Kriegman, "*Parameterized Families of Polynomials for Bounded Algebraic Curve and Surface Fitting*," **IEEE Transactions on Pattern Analysis and Machine Intelligence**, 16(3) Mar. 1994, pp. 287–303.

45. S. Petitjean, J. Ponce, D. Kriegman, "*Computing Exact Aspect Graphs of Curved Objects: Algebraic Surfaces*," **International Journal of Computer Vision**, 9(3) Dec. 1992, pp. 231–255.

46. D. Kriegman, "*Computing Stable Poses of Piecewise Smooth Objects*," **Computer Vision, Graphics and Image Processing: Image Understanding**, Academic Press, 55(2), Mar. 1992, pp. 109–118.

47. J. Ponce, A. Hoogs, D. Kriegman, "*On Using CAD Models to Compute the Pose of Curved 3D Objects*," **Computer Vision, Graphics and Image Processing: Image Understanding**, Academic Press, 55(2), Mar. 1992, pp. 184–197.

[1] 2003 Paper of the Year Award, Journal of Structural Biology.

48. D. Kriegman, J. Ponce, "*On Recognizing and Positioning Curved 3D Objects from Image Contours*," **IEEE Transactions on Pattern Analysis and Machine Intelligence**, Dec. 1990, pp. 1127–1137. Reprinted in **Automatic Object Recognition**, *Milestones in Computer Vision series*, Hatem Nasr ed., SPIE, 1992.
49. D. Kriegman, J. Ponce "*Computing Exact Aspect Graphs of Curved Objects: Solids of Revolution*," **International Journal of Computer Vision**, 5(2) Nov. 1990, pp. 119–136.
50. J. Ponce, D. Kriegman "*An Algebraic Approach to Computer Vision*," **Revue d'Intelligence Artificielle**, Special Issue on Geometric Reasoning, Dec. 1989, pp. 105–135.
51. D. Kriegman, E. Triendl, T.O. Binford, "*Stereo Vision and Navigation in Buildings for Mobile Robots*," **IEEE Transactions on Robotics and Automation**, 5(6) Dec. 1989, pp. 792–803. Reprinted in **Autonomous Mobile Robots**, S.S. Iyengar and A. Elfes, eds., IEEE Press, 1991, pp. 332–341.

III. Invited Conference Papers

52. D. Kriegman, S. Mallick, S. Agarwal, S. Belongie, B. Carragher, C. Potter, "*Vision in the Small: Reconstructing the Structure of Protein Macromolecules from Cryo-Electron Micrographs*," British Machine Vision Conference, 2006, vol. 1, pp. 1–6.
53. J.W. Lim, J. Ho, M.H. Yang, K.C. Lee, D. Kriegman, "*Image Clustering with Metric, Local Linear Structure, and Affine Symmetry*," **Snowbird Learning Workshop**, April, 2004.
54. D. Kriegman, P. Belhumeur, A. Georghiades, "*Shape and Enlightenment: Reconstruction and Recognition under Variable Illumination*," International Symposium on Robotics Research, October, 1999, pp. 79–88.
55. G. Hager, D. Kriegman, A. Georghiades, O. Ben-Shahar, "*Toward Domain-Independent Navigation: Dynamic Vision and Control*" in special session "Purposive Vision: the next playground for control theory?", **IEEE Conference on Decision and Control**, Tampa, Dec. 1998.
56. D. Kriegman, P. Belhumeur, "*Shape, Illumination and Representation in Computer Vision*," **International Joint Workshop on Shape, Contour and Grouping**, Palermo, Italy, May 1998.
57. D. Kriegman, J. Ponce, "*Representations for Recognizing Complex Curved 3D Objects*," presented to the **Workshop on 3D Object Representations in Computer Vision**, 1994 and appeared in **Object Representation in Computer Vision**, Springer, 1995, pp. 125–138.
58. C.J. Taylor, D. Kriegman, "*Vision-Based Motion Planning and Exploration Algorithms for Mobile Robots*," **The Algorithmic Foundations of Robotics**," Goldberg, Halperin, Latombe, Wilson, eds., A.K. Peters, Boston, Mass, 1995, pp. 69–84.
59. M. Tarr, D. Kriegman, "*A Formal Basis for Understanding View-based Representations in Humans*," **Workshop on Visual Perception: Computation and Psychophysics**, Chatham, Mass., 1993 (presentation, no published paper).
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IV: Contributed Conference Papers[2]

[2]Major computer vision conferences such as ICCV, CVPR and ECCV are highly competitive and stringently reviewed. Papers receive three double blind reviews, are published in an archival proceedings, and acceptance rates are about 6% for oral presenations and 25% overall.

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65. E. Christiansen, A. Ziegler, I. Essa, D. Kriegman, S. Belongie, "*Match-time covariance for descriptors*," British Machine Vision Conference, 2013.
66. A.C. Murillo, I. Kwak, P. Belhumeur, D. Kriegman, S. Belongie, "*From Bikers to Surfers: Visual Recognition of Urban Tribes*," British Machine Vision Conference, 2013.
67. A. Flores, E. Christiansen, D. Kriegman, S. Belongie, "*Camera Distance from Face Images*," **International Symposium on Visual Computing**, 2013.
68. E. Christiansen, I. S. Kwak, S. Belongie, D. Kriegman, "*Face box shape and verification,*" **International Symposium on Visual Computing**, 2013.
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71. A.C. Murillo, I. Kwak, L. Bourdev, D. Kriegman, S. Belongie "*Urban Tribes: Analyzing Group Photos from a Social Perspective*", CVPR Workshop on Socially Intelligent Surveillance and Monitoring (SISM), Providence, RI, June, 2012.
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