

Curriculum Vitae:

D.A. Forsyth

Birth

2 May, 1963, Cape Town, South Africa.

Degrees

1. B.Sc., Electrical Engineering, U. of the Witwatersrand, Johannesburg, 1984
2. B.Sc., Electrical Engineering, U. of the Witwatersrand, Johannesburg, 1986
3. M.A., (procedural degree), Oxford University, 1989
4. D.Phil., Oxford University, 1989

Appointments

1. Fellow, Magdalen College, Oxford, Jan. 1989-Jan. 1992
2. Assistant Professor, Dept. of Computer Science, U. of Iowa, Sept. 1991-Jul. 1994
3. Associate Professor, Dept. of Computer Science, U. of Iowa, July 1994-Jul. 1996
4. Assistant Professor, Dept. of Computer Science, U. of California, Berkeley, Jul. 1994-Jun. 1996
5. Associate Professor, Dept. of Computer Science, U. of California, Berkeley, Jul. 1996-Jun. 2002
6. Full Professor, Dept. of Computer Science, U. of California, Berkeley, Jul. 2002-Jun 2006
7. Full Professor, Dept. of Computer Science, U. of Illinois, Aug. 2004-Present
8. Fulton Watson Copp Chair in Computer Science, U. of Illinois, May 2014-Present

Honors and Awards

1. Diocesan College Rhodes Scholar, 1985
2. National Science Foundation Research Initiation Award, 1992
3. National Science Foundation Young Investigator Award, 1992
4. Marr Prize, Best Paper at 1993 ICCV, 1993
5. Best Paper in Cognitive Computer Vision, ECCV, 2002
6. Okawa Foundation Fellowship, 2003
7. IEEE Technical Achievement Award, 2006
8. IEEE Fellow, 2009
9. ACM Fellow, 2014
10. PAMI Mark Everingham Prize, 2024 (https://www.thecvf.com/?page_id=529)
“for continual advice and wisdom in overseeing the computer vision community's conferences and journals”

Consulting Activities

1. Consultant, intellectual property law firm, 1998-99
2. Consultant on retainer, FujiFilm Software CA, 2001-2006
3. Consultant, venture capital firm, 2002
4. Consultant, intellectual property law firm, 2003

5. Consultant, State's attorney's general, 2006
6. Technical Advisor, Euclid Media, 2007-2008
7. Technical Advisor, Animate-me, 2007-2008, helped them get NSF SBIR award.
8. Technical Advisor, Snap-and-buy, 2007-2008
9. Technical Advisor, Lumenous, 2015-2020, helped them get NSF SBIR award. Engaged by Lumenous, no litigation
10. Technical Advisor, Depix, 2020-2022. Engaged by Depix, no litigation.
11. Technical Advisor, Revery.ai, 2020-present. Engaged by Revery.ai, no litigation.
12. Consultant, Foley+Lardner, 2009-2010

13. Consultant, Sheridan and Ross (IP law firm), 2012-2013;
including reading, search and report preparation
14. Consultant, Fish and Richardson, 2014-2015
IpLearn-Focus, LLC vs Microsoft Corp. IPR's were IPR2015-00095; IPR2015-00096; IPR2015-00097.
15. Consultant, Irell and Manella, 2016-2018
IPR petitions; *Legend3D, Inc. v. Prime Focus Creative Services Canada Inc.*, IPR2016-00806; *Prime Focus Creative Services Canada Inc. v. Legend3D, Inc.*, IPR2016-01243; and *Prime Focus Creative Services Canada Inc. v. Legend3D, Inc.*, IPR2016-01491. Parties were: Legend 3D and Prime Focus Creative Services Canada
16. Consultant, Klarquist Sparkman, 2019-Nov. 2023
Including reading, search and report preparation for invalidity and non-infringement, for district court matter. *Kewazinga Corp. v. Microsoft Corporation*, No. 18-cv-04500, (S.D.N.Y., May 21, 2018).
Parties were: Microsoft Inc. and Kewazinga Corp. Engaged by Microsoft Corporation.
17. Consultant, Scientific Advice to Apple, 2021. Engaged by Apple, no litigation.
18. Consultant, Kerr, Russell and Weber,
2020-2022, Parties were Innovision and Autis: engaged, but only 1 hr work done. Engaged by Autis, case was: *Inovision Software Solutions, Inc. v. Autis Ingenieros, S.L.U.*, No. 19-cv-12580, (E.D. Mich, Sept. 3, 2019).
19. Consultant, Oblon, 2021,
Parties were: Eagle View Technologies Inc.; Pictometry International Corp; Nearmap US Inc; Nearmap Australia, Pty, Ltd and Nearmap Ltd. Reviewed prior art for anticipated litigation, but not aware of any filings. Engaged by: Nearmap. *Eagle View Technologies v. Nearmap US*, No. 21-cv-0283, (D. Utah, May 4, 2021)
20. Consultant, Tensegrity Law group, 2021
Parties were: Facebook, Inc.; MTA Platforms, Inc; Instagram LLC; Whatsapp, Inc; Eyesmatch, Ltd; Memomi Labs, Inc. The activities involved preparing materials for litigation and IPRs involving U.S. Patent Nos. 7,948,481; 8,624,883; 8,982,109; and 8,982,110. Litigation was: *EyesMatch Ltd. v. Facebook, Inc.*, No. 21-cv-0111, (D. Del, Jan. 28, 2021). IPRs were filed against: 7,948,481 (IPR2022-00370); 8,624,883 (IPR2022-00371); 8,982,109 (IPR2022-00489); 8,982,110 (IPR2022-00490). Engaged by: Eyesmatch
21. Consultant, Quinn Emmanuel, 2021
The matter was: Certain Barcode Scanners, Mobile Computers with Barcode Scanning Capabilities, Scan Engines, and Components Thereof (No. 337-TA-1285); *Honeywell International Inc. v. Zebra Technologies Corporation*, Nos. 6:21-cv-1008, 1010 (W.D. Tex, Sept. 29, 2021); Engaged by: Zebra Techs Corp.
22. Consultant, Fish and Richardson, 2022-2024
Including reading, search, report preparation and deposition for five IPR's:
IPR2022-00733, IPR2022-00734, IPR2022-00735, IPR2022-01090, IPR2022-01009

- Parties are: Eagle View Technologies Inc.; Pictometry International Corp; Nearmap US Inc; Nearmap Australia, Pty, Ltd and Nearmap Ltd. Engaged by: Nearmap
23. Consultant, Groombridge Wu, present
Parties are: Eagle View Technologies Inc.; Pictometry International Corp; Nearmap US Inc; Nearmap Australia, Pty, Ltd and Nearmap Ltd. Litigation is: *Eagle View Technologies v. Nearmap US*, No. 21-cv-0283, (D. Utah, May 4, 2021). Engaged by: Nearmap
24. Consultant, Tensegrity, present
EyesMatch Ltd. v. Samsung Electronics America, Inc., No. 23-cv-0363 (E.D. Tex., Aug. 8, 2023). Parties are: Eyesmatch Ltd; Samsung Electronics, Ltd. Engaged by: Eyesmatch
- 25 Consultant, BLGRP, present
Planner5D vs Meta and Princeton; Case No 3:19-CV-03132-WHO, 3:20-CV-08261-WHO; Engaged by: Planner5D

Graduated PhD Students

1. C.A. Rothwell (co advised with A. Zisserman)
2. J.Haddon
3. F.S.Cho
4. S.J. Cheney
5. S.Ioffe
6. P.Duygulu (co-advised)
7. O.Arikan
8. D.Ramanan
9. T.Berg (nee Miller)
10. J.Edwards
11. R.White
12. L.Ikemoto
13. N.Loeff
14. A.Farhadi
15. D.Tran
16. A.Sorokin
17. G.Wang
18. V.Hedau (joint with D. Hoiem)
19. B.Jones (joint with B. Bailey)
20. R.Sodhi (joint with B. Bailey)
21. K.Karsch
22. A.Sadeghi
23. Z.Liao
24. S. Singh
25. D. Tsatsoulis
26. J. Lu
27. J. Rock
28. A. Deshpande
29. M. Vasileva
30. D. Roberts (joint with M. Golparvar Fard)
31. T. Issaranon
32. M-J. Chong
33. Anand Bhattad
34. Kedan Li
35. Jeffrey Zhang
36. Fan Wu

Editorial Boards

1. Associate Editor, IEEE Trans. Multimedia
2. Editorial Board, Int. J. Computer Vision
3. Associate Editor, IEEE Trans Pattern Analysis and Machine Intelligence, 2 terms
4. Associate Editor, J. ACM, since 2011
5. Associate Editor, ACM Transactions on Graphics, since 2011
6. Editor in Chief, IEEE Trans. Pattern Analysis and Machine Intelligence, 2013-2017

Service and Administration

1. Committee member, U.C. Berkeley Committee on Admissions, Enrollment and Preparatory Education, 1995-2001 (Dealt with the University's response to the UC Regents order on affirmative action; established now well-known new admission policy for UC Berkeley, currently being taken up by other UC campuses).
2. Committee member, U.C. Berkeley Rhodes and Marshall Scholarship Committee, 1999-2003.
3. Member, National Research Council Committee on Tools and Strategies for Protecting Kids from Pornography and Their Applicability to Other Inappropriate Internet Content. (3 years of hearings, both closed and public, and an extensive report that was very well received by the popular press)
4. Founder and Member, Executive Committee of the Board, Berkeley Foundation for Opportunity in Information Technology. (Foundation seeks to ensure that Demographics of California University Computer Science Departments reflects that of the state, by helping targeted schoolchildren improve their understanding of science and their college application packets; by offering scholarships; and by various other means.)
5. Program Co-Chair: ECCV2008, CVPR 2000, CVPR2011, CVPR2018, CVPR2021
(Note: For vision conferences, program chairs cannot submit papers; PC is a major administrative task; CVPR2018 had approx. 5000 submissions and CVPR 2021 had approx. 7000 submissions)
6. General Co-Chair: CVPR2006, CVPR2015, ICCV2019
7. Senior Advisor to Program Chairs: CVPR2024, ICCV2025
8. Associate Department Chair, UIUC CS Department, 2011-2015
9. Adjunct Professor, TTIC, 2015-ongoing
10. Scientific Advisory Board, Allen Institute for Artificial Intelligence, 2015-to date
11. Scientific Advisory Board, KAUST Visual Computing Institute, 2016
12. Scientific Advisory Board, Baidu Research, 2017-2022
13. Editor in Chief, IEEE Trans. Pattern Analysis and Machine Intelligence, 2013-2017
14. Committee member, UIUC Senate Committee on Student Discipline, 2017-present
15. Ombud, CVPR, 2018-present
16. Member, 8'th Senate review commission, UIUC 2018-2019
17. Chair, UIUC Senate committee for Academic Freedom and Tenure, 2020-present
Duties included: Significant Article X Hearing (40 hours of testimony) and managing difficult academic freedom disputes
18. Technical Advisory board, Depix, 2020-2022
19. Technical advisor, Revery.ai, 2020-present
20. Moderator for Computer Vision, ArXiv, 2017(?)-present
21. Chair, search committee for EIC IEEE TPAMI, 2021

US Patents

1. US 9330500 B2 Inserting objects into content, Kevin Karsch, Varsha Chandrashekhar Hedau, David A. Forsyth, Derek Hoiem
2. US 8842118 B1 Automated image replacement using deformation and illumination estimation, Ryan White, David Forsyth
3. US 9,471,967, Relighting Fragments For Insertion Into Content, Kevin Karsch, Zicheng Liao, David Forsyth
4. US12131365B2 Search Engine Use of Neural Network Regressor for Multi-Modal Item Recommendations Based on visual Semantic Embeddings, David A. Forsyth, Ranjitha Kumar, Krishna Dusad, Kedan Li, Mariya I. Vasileva, Bryan Plummer, Yuan Shen, Shreya Rajpal

Publications

Authored books

1. Forsyth, D.A. and Ponce, J., *Computer Vision: A Modern Approach*, Prentice-Hall, 2002.
2. Forsyth, D.A. and Ponce, J., *Computer Vision: A Modern Approach*, 2002. Chinese Language Edition
3. Forsyth, D.A. and Ponce, J., *Computer Vision: A Modern Approach*, 2002. Russian Language Edition
4. Forsyth, D.A. and Ponce, J., *Computer Vision: A Modern Approach*, 2002. Japanese Language Edition
5. Forsyth, D.A., Arikan, O., Ikemoto, L., O'Brien, J., and Ramanan, D., *Computational Studies of Human Motion: Part I, Tracking and Motion Synthesis*, ISBN: 1-933019-30-1 178pp July 2006 (also available as *Foundations and Trends in Computer Graphics and Vision Volume 1 Issue 2/3* (255pp), 2006)
6. Forsyth, D.A. and Ponce, J., *Computer Vision: A Modern Approach* (2e), Prentice Hall, 2011 (heavily revised edition, about 50% new material)
7. Forsyth, D.A., *Probability and Statistics for Computer Science*, Springer Verlag, 2018
8. Forsyth, D.A., *Applied Machine Learning*, Springer Verlag, 2019

Edited books

1. *Computer Vision - ECCV 2008. 10'th European Conference on Computer Vision, Part I*, D.A. Forsyth, P.H.S. Torr and A. Zisserman, Springer Verlag LNCS 5302, 801 pp, 2008
2. *Computer Vision - ECCV 2008. 10'th European Conference on Computer Vision, Part II*, D.A. Forsyth, P.H.S. Torr and A. Zisserman, Springer Verlag LNCS 5303, 851pp., 2008
3. *Computer Vision - ECCV 2008. 10'th European Conference on Computer Vision, Part II*, D.A. Forsyth, P.H.S. Torr and A. Zisserman, Springer Verlag LNCS 5304, 893pp., 2008
4. *Computer Vision - ECCV 2008. 10'th European Conference on Computer Vision, Part II*, D.A. Forsyth, P.H.S. Torr and A. Zisserman, Springer Verlag LNCS 5305, 827pp., 2008
5. *Applications of Invariance in Computer Vision*, J.L. Mundy, A. Zisserman and D.A. Forsyth, (ed.s), Springer LNCS 825, 1994.
6. *Shape, contour and grouping in computer vision*, D.A. Forsyth, J.L. Mundy, R. Cipolla and V. DiGes'u (ed.s), Springer-Verlag LNCS 1681, 2000.

Book chapters

1. Forsyth, D.A., "Colour constancy," in Blake, A. and Troscianko, T. (eds.), *AI and the Eye*, John Wiley and Sons, 1990.
2. A. Zisserman, C.A. Rothwell, D. A. Forsyth and J. L. Mundy, "Fast Recognition using Algebraic Invariants," in Mundy, J.L and Zisserman, A. (eds.), *Applications of Invariance in computer vision*, MIT press, 1992.
3. w A. Zisserman, D. A. Forsyth, C. A. Rothwell, and J. L. Mundy, "Recognising General Curved Objects Efficiently," in Mundy, J.L and Zisserman, A. (eds.), *Applications of Invariance in computer vision*, MIT press, 1992.
4. C. Coehlo, A. Heller, J.L. Mundy, D.A.Forsyth and A. Zisserman, "An experimental evaluation of projective invariants," in Mundy, J.L and Zisserman, A. (eds.), *Applications of Invariance in computer vision*, MIT press, in print, 1992.
5. Forsyth, D.A., Mundy, J.L., Zisserman, A.P. and Rothwell, C.A. "Applications of invariant theory in vision," In Kapur, D. and Donald, B.R. (eds.), *Integrating Symbolic and Numerical Methods for Artificial Intelligence*, Academic

- Press, 1992.
6. D.A. Forsyth, "The outline of an algebraic surface yields the surface," *Design and application of curves and surfaces*, R.B. Fisher (ed.), OUP, 1994.
 7. F.S. Cho and D.A. Forsyth, "Hidden Feature Removal," *Wiley Encyclopedia of Electrical and Electronics Engineering*, vol. 8, pp. 713-725. New York: John Wiley & Sons, 1999. (invited review).
 8. D.A. Forsyth, "Foreword", in H. Aghajan and A. Cavallero, *Multi-Camera Networks*, Elsevier, 2009
 9. D.A. Forsyth and J. Malik, "Computer Vision", in S.J. Russell and P. Norvig, *Artificial Intelligence: A Modern Approach 3e*, Pearson, 2009
 10. D.A. Forsyth, T. Berg, C. Alm, A. Farhadi, J. Hockenmaier, N. Loeff, G. Wang, "Words and Pictures: Categories, Modifiers, Depiction and Iconography" in *Object Categorization: Computer and Human Vision Perspectives* S. Dickinson, A. Leonardis, B. Schiele, and M. Tarr, (eds), Cambridge University Press, 2009.
 11. D.A. Forsyth and J. Malik, "Computer Vision", in S.J. Russell and P. Norvig, *Artificial Intelligence: A Modern Approach 4e*, Pearson, 2020

Journal Articles

1. Forsyth, D.A., "A novel algorithm for colour constancy," *International Journal of Computer Vision*, 5:1, 5-36, July, 1990. Reprinted in *Physics based vision* (3 vols.), edited by S.A. Shafer, G. Healey, and L.B. Woolff, 1992.
2. Forsyth, D.A. and Zisserman, A., "Shape from shading in the light of mutual illumination," *Image and Vision Computing*, 8:1, 42-49, 1990.
3. Forsyth, D.A., Mundy, J.L., Zisserman, A.P. and Brown, C.M., "Projectively Invariant Representations Using Implicit Algebraic Curves," 9:2, 130-136, 1991.
4. Forsyth, D.A., Mundy, J.L., Zisserman, A.P., "Transformational Invariance- a primer," *Image and Vision Computing*, 10:1, 39-45, 1992.
5. s Forsyth, D.A., and Zisserman, A.P., "Reflections on Shading," *IEEE Trans. Pattern Analysis and Machine Intelligence*, Special issue on physical modeling in computer vision, 13:7, 671-679, Jul. 1991.
6. Forsyth, D.A., Mundy, J.L., Zisserman, A.P., Coelho, C., Heller, A. and Rothwell, C.A., "Invariant descriptors for 3D object recognition and pose," *IEEE Trans. Pattern Analysis and Machine Intelligence*, Special issue on 3D object recognition, 13:10, 971-991, Oct. 1991.
7. Rothwell, C.A., Zisserman, A.P., Marinos, C.I., Forsyth, D.A. and Mundy, J.L., "Relative motion and pose from arbitrary plane curves," *Image and Vision Computing*, 10:4, 250-262, 1992.
8. Rothwell, C.A., Zisserman, A., Forsyth, D.A. and Mundy, J.L., "Planar Object Recognition using Projective Shape Representation," *International J. of Computer Vision*, 16:1, 57-99, Sept. 1995.
9. Zisserman, A., Forsyth, D.A., Mundy, J.L., Rothwell, C.A., and Liu, J.S., "3D Object Recognition using Invariance," *Artificial Intelligence*, 78:1-2, 239-288, Oct. 1995.
10. Forsyth, D.A., "Recognizing Algebraic Surfaces from their Outlines," *International J. Computer Vision*, 18:1, 21-40, 1996.
11. Forsyth, D.A. and Fleck, M. M., "Automatic Detection of Human Nudes," *International J. Computer Vision*, 32:1, 63-77, Aug. 1999.
12. Chenney, S., Ichnowski, J. and Forsyth, D.A., "Dynamics modeling and culling," *IEEE Computer Graphics and Applications*, 19:2, 78-87, 1999.
13. Cho, F.S. and Forsyth, D.A., "Interactive Ray Tracing with the Visibility Complex," *Computers and Graphics*, Special Issue on Visibility - Techniques and Applications, 23:5, 703-717, 1999.
14. Forsyth, D.A., "Computer Vision Tools for Finding Images," *Library Trends, Topic: Progress in Visual Information Access and Retrieval*, 48:2, Fall 1999.
15. Stephen Chenney and D. A. Forsyth. "Sampling Plausible Solutions to Multi-Body Constraint Problems," *Proceedings of SIGGRAPH 2000*, p.219-28, 2000
16. Ioffe, S. and Forsyth, D.A., "Probabilistic methods for finding people," *International J. Computer Vision*, 43:1, 45-68, Jun. 2001.
17. Forsyth, D.A., Haddon, J., and Ioffe, S., "The Joy of Sampling," *International J. Computer Vision*, 41:1-2, 109-134, Jan. 2001.
18. O. Arikan and D.A. Forsyth, "Interactive Motion Generation from Examples," *Proc. SIGGRAPH*, 2002
19. O. Arikan, Forsyth, D.A., and J. O'Brien "Motion Synthesis from Annotations," *SIGGRAPH 2003*, San Diego, CA, Jul. 2003, in *ACM Transactions on Graphics*, vol. 33:3, 402-408, 2003
20. Barnard, K., Duygulu, P., Forsyth, D., de Freitas, N., Blei, D.M, Jordan, M. I., "Matching Words and Pictures," *Journal of Machine Learning Research*, 3(Feb):1107-1135, 2003.
21. Okan Arikan, David A. Forsyth, James F. O' Brien, "Fast and detailed approximate global illumination by irradiance decomposition," *ACM Transactions on Graphics (TOG) (SIGGRAPH 05)* Volume 24 , Issue 3 (July 2005)
22. A. Lobay and D.A. Forsyth, "Shape from Texture without Boundaries," *Int. J. Computer Vision*, 67, 1, 71-91, 2006

23. David A. Forsyth, Okan Arikan, Leslie Ikemoto, James O' Brien, Deva Ramanan, "Computational Studies of Human Motion: Part 1, Tracking and Motion Synthesis," *Foundations and Trends in Computer Graphics and Vision* Volume 1 Issue 2/3 (255pp), 2006 (also published in book form).
24. Ramanan, D.; Forsyth, D.A.; Barnard, K.; "Building models of animals from video Pattern Analysis and Machine Intelligence," *IEEE Transactions on* Volume 28, Issue 8, Aug. 2006 Page(s):1319 - 1334
25. Ramanan, D; Forsyth, D.A.; Zisserman, A; "Tracking People by Learning Their Appearance," *IEEE Transactions on Pattern Analysis and Machine Intelligence*, Volume 29, no 1, pp 65-81, 2007.
26. Ryan White, Keenan Crane, David Forsyth, "Capturing and Animating Occluded Cloth," *ACM Transaction on Graphics (SIGGRAPH)*, 2007.
27. T. Berg, A. Berg, R. White, E. Learned Miller, Y.W. The and D.A. Forsyth, "Names and Faces," accepted for publication, *IJCV* 2008
28. L. Ikemoto, O.Arikan and D.A. Forsyth, "Generalizing motion edits with Gaussian processes," *ACM Transactions on Graphics*, 2009
29. N. Ikizler and D.A. Forsyth, "Searching for Complex Human Activities with No Visual Examples," *Int. J. Computer Vision*, 2008.
30. Tamara L. Berg and Alexander Sorokin and Gang Wang and David A. Forsyth and Derek Hoiem and Ali Farhadi and Ian Endres, It's all about the data, *Proceedings of IEEE* , 2010
31. D. Forsyth, "Variable Source Shading Analysis", *Int J. Computer Vision*, Volume 91 Issue 3, February 2011
32. Anna Paviotti, David A. Forsyth and Guido M. Cortelazzo, "Lightness Recovery for Pictorial Surfaces", *Int J Computer Vision*, Vol 94, Issue 1, 2011
33. Kevin Karsch, Varsha Hedau, Derek Hoiem and D.A. Forsyth, "Rendering Synthetic objects into Legacy Photographs", *ACM Transactions on Graphics (Proc SIGGRAPH Asia)*, V 30, Issue 6, 2011
34. Gang Wang, Derek Hoiem, David Forsyth, "Learning Image Similarity from Flickr Groups Using Fast Kernel Machines," *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)*, Nov. 2012.
35. Zicheng Liao, Hugues Hoppe, David Forsyth, Yizhou Yu, A subdivision-based representation for vector image editing. *IEEE Trans. Vis. Comput. Graphics*, 18(11), Nov. 2012. (Spotlight Paper)
36. Yang Wang, Duan Tran, Zicheng Liao, D.A> Forsyth, Discriminative Hierarchical Part-based Models for Human Parsing and Action Recognition, *J. Machine Learning Research* 13 (Oct) 2012, 3075-3102
37. G. Wang, D. Hoiem, D.A. Forsyth, "Improved object categorization and detection using comparative object similarity", *IEEE TPAMI* 2013, Vol. 99
38. Recognizing activities in multiple views with fusion of frame judgments Selen Pehlivan, David A. Forsyth, *Image and Vision Computing* 32 (2014) 237-249
39. Karsch, K.; Golparvar-Fard M.; Forsyth, D., "ConstructAide: Analyzing and visualizing construction sites through photographs and building models" *ACM Transactions on Graphics* (to be presented at SIGGRAPH Asia), 2014.
40. Karsch, K.; Sunkavalli, K. Hadap, S.; Carr, N.; Jin, H.; Fonte, R.; Sittig, M.; Forsyth, D. "Automatic scene inference for 3D object compositing," *ACM Transactions on Graphics* (presented at SIGGRAPH), 33, 3, 2014.
41. Du Tran, Junsong Yuan, and David Forsyth, Video Event Detection: from Subvolume Localization to Spatio-Temporal Path Search, *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)*, 2014
42. Zicheng Liao, Kevin Karsch, Hongyi Zhang, D.A. Forsyth, "An Approximate Shading Model with Detail Decomposition for Object Relighting" *Int. J. Computer Vision*, 2018
43. D.A. Forsyth and Jason Rock, "Intrinsic Image Decomposition using Paradigms", *IEEE TPAMI*, November, 2022
44. Xiaoyang Bai, Zhongmin Zhu, Alexander Schwing, David Forsyth, Viktor Gruev, "Angle of polarization calibration for omnidirectional polarization cameras" *Opt Express*. 2023 Feb 13;31(4):6759-6769.
45. Kedan Li, Jeffrey Zhang, David Forsyth, "POVNet: Image-Based Virtual Try-On Through Accurate Warping and Residual" *IEEE Trans Pattern Anal Mach Intell*, accepted for publication Jun 2023
46. Xiaoyang Bai, Zuodong Liang, Zhongmin Zhu, Alexander Schwing, David Forsyth & Viktor Gruev , "Polarization-based underwater geolocalization with deep learning", *eLight* volume 3, Article number: 15 (2023)
47. Y. Shen, B. Chandaka, Z-H. Lin, A. Zhai, H. Cui, D.A. Forsyth, S. Wang, "Sim-on-Wheels: Physical World in the Loop Simulation for Self-Driving", *IEEE Robotics and Automation Letters*, Accepted for publication, 2023

Conference papers

1. Forsyth, D.A., "Finding Changes in Colour," *Proc. 1987 Alvey Vision Conference*.
2. Brady, J.M., Cameron, S.A., Durrant-Whyte, H., Fleck, M.M., Forsyth, D.A., Noble, J.A., and Page, I., "Progress towards a system that can acquire pallets and clean warehouses," *Proc. ISRR*, 1987.
3. Forsyth, D.A., "A novel approach to colour constancy," *Proc. 2nd International Conference on Computer Vision*, 9-18, 1988.
4. Forsyth, D.A. and Zisserman, A., "Mutual illumination," *Proc. IEEE conference on Computer Vision and Pattern*

- Recognition, 466-473, 1989.
5. Forsyth, D.A. and Zisserman, A., "Shape from shading in the light of mutual illumination," Proc. 5th Alvey Vision Conference, 193-198, 1989.
 6. Forsyth, D.A., Mundy, J.L., Zisserman, A.P. and Brown, C.M., "Projectively Invariant Representations Using Implicit Algebraic Curves," 1st European Conference on Machine Vision, 427-436, 1990. (also OU Internal report no: 1829/90).
 7. Forsyth, D.A., Mundy, J.L., Zisserman, A.P. and Brown, C.M., "Invariance-a neFramework for vision," 3rd International Conference on Computer Vision, Osaka, Japan, 598-605, 1990. (also OU Internal report no: 1830/90)
 8. Forsyth, D.A., Mundy, J.L., Zisserman, A.P. and Brown, C.M., "Transformational Invariance - a primer," British Machine Vision Association Conference, 1-6, 1990.
 9. Zisserman, A.P., Marinos, C.I., Forsyth, D.A., Mundy, J.L. and Rothwell, C.A., "Relative motion and pose from invariants," British Machine Vision Association Conference, 7-12, 1990.
 10. Rothwell, C.A., Zisserman, A.P., Forsyth, D.A. and Mundy, J.L., "Using Projective Invariants for constant time library indexing in model based vision," Proc. British Machine Vision Conference, 1991.
 11. Rothwell, C.A., Zisserman, A., Forsyth, D.A., and Mundy, J.L., "Canonical Frames for Planar Object Recognition," 2nd European Conference on Computer Vision, Springer Verlag Lecture Notes in Computer Science, 757-772, 1992.
 12. Rothwell, C.A., Zisserman, A., Mundy, J.L., and Forsyth, D.A., "Efficient Model Library Access by Projectively Invariant Indexing Functions," Computer Vision and Pattern Recognition 92, 109-114, 1992.
 13. Forsyth, D.A., Mundy, J.L., Zisserman, A.P., and Rothwell, C.A., "Recognising rotationally symmetric surfaces from their outlines," Proc. 2nd European Conference on Computer Vision, Santa Margherita Ligure, Italy, May 1992, 639-648, 1992.
 14. Rothwell, C.A., Forsyth, D.A., Zisserman, A., and Mundy, J.L., "Extracting projective structure from single perspective views of 3D point sets," International Conference on Computer Vision, Berlin, Germany, 573-582, 1993.
 15. Forsyth, D.A., "Recognizing Algebraic Surfaces from their Outlines," International Conference on Computer Vision, Berlin, Germany, 476-480, 1993.
 16. J. Liu, Mundy, J.L., Forsyth, D.A., Zisserman, A.P., and Rothwell, C.A., "Efficient Recognition of rotationally symmetric surfaces and straight homogenous generalized cylinders," IEEE conference on Computer Vision and Pattern Recognition '93, 1993.
 17. Forsyth, D.A. and Rothwell, C.A., "Recognising extruded surfaces from their outlines," Proc. Allerton Conference on communication, computing and control, 1993.
 18. Forsyth, D.A., Mundy, J.L., Rothwell, C.A., and Zisserman, A., "Using global consistency to recognize Euclidean objects with an uncalibrated camera," Proc CVPR-94, Seattle, WA, 1994.
 19. Forsyth, D.A., Yang, C.K., and Teo, K.B., "Efficient radiosity in dynamic environments," Proc. 5th Eurographics workshop on rendering, 1994.
 20. Zisserman, A., Mundy, J.L., Forsyth, D.A., Liu, J.S., Pillow, N., Rothwell, C.A. and Uteke, S., "Class-based grouping in perspective images," Proc. 5th International Conference on Computer Vision, Boston, MA., June 20-23, 1995.
 21. M.M. Fleck, D.A. Forsyth, and C. Bregler, "Finding naked people," Fourth European Conf. on Computer Vision, Cambridge, UK, Apr. 1996, in Buxton, B. and Cipolla, R. (eds.), Computer Vision -- ECCV'96, Vol. II, Lecture Notes in Computer Science, vol. 1065, 593-602, Berlin, Germany: Springer-Verlag.
 22. Forsyth, D.A., Malik, J., Fleck, M.M., Leung, T., Bregler, C., Carson, C., and Greenspan, H., "Finding pictures of objects in large collections of images," Proc. of the 1996 Data Processing Clinic on Images in Digital Libraries, GSLIS Publications office, University of Illinois at Urbana Champaign, 1996.
 23. Forsyth, D.A., Malik, J., Fleck, M.M., Greenspan, H., Leung, T., Belongie, S., Carson, C., and Bregler, C., "Finding pictures of objects in large collections of images," Proc. 2nd International Workshop on Object Representation in Computer Vision, April, 1996.
 24. Mundy, J., Curwen, R., Liu, J., Rothwell, C., Zisserman, A., and Forsyth, D.A., "MORSE: an architecture for 3D object recognition based on invariants," Second Asian Conf. Computer Vision, ACCV '95, Singapore, Dec. 1995, in Li, S.Z.; Mital, D.P.; Teoh, E.K.; and Wan, H. (eds.), Recent Developments in Computer Vision: Second Asian Conference on Computer Vision, ACCV '95, Invited Session Papers, Lecture Notes in Computer Science, vol. 1035, 425-434, Berlin, Germany: Springer-Verlag.
 25. Forsyth, D.A. and Fleck, M.M., "Finding People and Animals by guided Assembly," Proc. Imagina Conference, 70-77, 1997 (invited paper).
 26. Kim, S-K and Forsyth, D.A., "A New Approach for Road Sign Detection and Recognition Algorithm," Proc. 30th ISATA Conference, 1997.
 27. Cheney, S.J. and Forsyth, D.A., "View Dependent Culling of Dynamic Systems in Virtual Environment," ACM Symposium on Interactive 3D Graphics, 1997.
 28. Forsyth, D.A. and Fleck, M.M., "Body Plans," Proc. CVPR '97, San Juan, Puerto Rico, Jun. 1997, 678-683, 1997.
 29. Forsyth, D.A. and Fleck, M.M., "Finding people and animals by guided assembly," Proc. International

- Conference on Image Processing, Washington, DC, Oct. 1997, vol. 3, 5-8, 1997 (invited paper).
30. Forsyth, D.A. and Fleck, M.M., "Identifying Nude Pictures," IEEE Workshop on applications of Computer Vision, Florida, Dec. 1997.
 31. Haddon, J. and Forsyth, D. A., "Shading primitives: finding folds and shallow grooves," Proc. Sixth International Conf. on Computer Vision, Bombay, India, Jan. 1998, 236-241, 1998.
 32. Haddon, J. and Forsyth, D. A., "Shape representations from shading primitives," Proc. 5th European Conference on Computer Vision, Freiburg, Germany, Jun. 1998, vol. 2, 415-431, 1998.
 33. Chenney, S., Ichnowski, J. and Forsyth, D. A., "Efficient dynamics modeling for VRML and Java," Proc. VRML 98 Third Symposium on the Virtual Reality Modeling Language, New York, NY, USA: ACM, 1998 p.15-24.
 34. Chung, M.G., Fleck, M.M., and Forsyth, D.A., "New Puzzle Assembly," Proc. SPIE, vol. 3545, 151-158, 1998.
 35. Ioffe, S. and Forsyth, D.A., "Learning to find pictures of people," in M. S. Kearns, S. A. Solla, and D. A. Cohn, editors, *Advances in Neural Information Processing Systems 11*, MIT Press, Cambridge, MA, 1999.
 36. Forsyth, D.A. and Ioffe, S. and Haddon, J., "Finding objects by grouping primitives," Conference Record of Thirty-Second Asilomar Conference on Signals, Systems and Computers, vol. 1, 905-909, 1998 (invited paper).
 37. Forsyth, D.A. "Notes for a paper on inference and shading," IEEE Workshop on the Integration of Appearance and Geometric Methods in Object Recognition, 12-33, 1999 (invited paper).
 38. Forsyth, D.A., Ioffe, S.I. and Haddon, J., "Bayesian Structure from Motion," Proc. International Conference on Computer Vision, Kerkyra, Corfu, Greece, Sep. 1999, vol. 1, 660-665, 1999.
 39. Ioffe, S.I. and Forsyth, D.A., "Finding people by sampling," Proc. International Conference on Computer Vision, Kerkyra, Corfu, Greece, Sep. 1999, vol. 2, 1092-1097, 1999.
 40. Forsyth, D.A., "Sampling, resampling and colour constancy," Proc. Computer Vision and Pattern Recognition, Ft. Collins, CO, Jun. 1999, vol. 1, 300-305, 1999.
 41. Forsyth, D.A. and Mundy, J.L., "Introduction," in Forsyth, D.A., Mundy, J.L., Cipolla, R., and DiGesù, V. (eds.), *Shape, Contour and Grouping in Computer Vision*, Lecture Notes in Computer Science, vol. 1681, 3-8, Springer-Verlag, 1999. (edited proceedings; I was one of the editors)
 42. Forsyth, D.A., "An empirical-statistical agenda for recognition," in Forsyth, D.A., Mundy, J.L., Cipolla, R., and DiGesù, V. (eds.), *Shape, Contour and Grouping in Computer Vision*, Lecture Notes in Computer Science, vol. 1681, 9-21, Springer-Verlag, 1999. (edited proceedings; I was one of the editors)
 43. Forsyth, D.A., Haddon, J., and Ioffe, S., "Finding objects by grouping primitives," in Forsyth, D.A., Mundy, J.L., Cipolla, R., and DiGesù, V. (eds.), *Shape, Contour and Grouping in Computer Vision*, Lecture Notes in Computer Science, vol. 1681, 302-318, Springer-Verlag, 1999. (edited proceedings; I was one of the editors)
 44. Chenney, S. and Forsyth, D.A., "Sampling Plausible Solutions to Multi-Body Constraint Problems," Proc. SIGGRAPH 2000, New Orleans, LA, Jul. 2000, 219-228, 2000.
 45. Ioffe, S. and Forsyth, D.A., "Human tracking with mixtures of trees," Proc. IEEE International Conf. on Computer Vision, Vancouver, Canada, Jul. 2001, vol. 1, 690-695, 2001.
 46. Barnard, K. and Forsyth, D.A., "Learning the semantics of words and pictures," Proc. IEEE International Conf. on Computer Vision, Vancouver, Canada, Jul. 2001, vol. 2, 408-415, 2001.
 47. Forsyth, D.A., "Shape from texture and integrability," Proc. IEEE International Conf. on Computer Vision, Vancouver, Canada, Jul. 2001, vol. 2, 447-453, 2001.
 48. Haddon, J. and Forsyth, D.A., "Noise in bilinear problems," Proc. IEEE International Conf. on Computer Vision, Vancouver, Canada, Jul. 2001, vol. 2, 622-627, 2001.
 49. Barnard, K. and Forsyth, D., "Exploiting Image Semantics for Picture Libraries," Proc. ACM/IEEE Joint Conf. on Digital Libraries, Roanoke, VA, Jun. 2001, p.469, 2001.
 50. Chenney, S., Arikan, O., and Forsyth, D.A., "Scalable Simulation," SIGGRAPH 2000 Technical Sketch. In *Conference Abstracts and Applications*, p. 254, 2000.
 51. Arikan, O., Chenney, S., and Forsyth, D.A., "Efficient Multi-Agent Path Planning," Proc. Eurographics Workshop on Animation and Simulation 2001, Manchester, UK, Sep. 2001.
 52. Chenney, S., Arikan, O., and Forsyth, D.A., "Proxy Simulations For Efficient Dynamics," Proc. of Eurographics 2001, Short Presentations, Manchester, UK, Sep. 2001.
 53. Barnard, K. and Forsyth, D.A., "Clustering Art," Proc. IEEE Conf. Computer Vision and Pattern Recognition, Kauai, HI, Dec. 2001, vol. 2, 434-441, 2001.
 54. Ioffe, S. and Forsyth, D.A., "Mixtures of Trees for Object Recognition," Proc. IEEE Conf. Computer Vision and Pattern Recognition, Kauai, HI, Dec. 2001, vol. 2, 180-185, 2001.
 55. Forsyth, D.A., "Shape from Texture without Boundaries," Proc. 7th European Conf. on Computer Vision, Copenhagen, Denmark, May 2001, vol. 3, 225-239, 2002.
 56. Duygulu, P., da Freitas, N.A., Barnard, K., and Forsyth, D.A., "Object Recognition as Machine Translation," Proc. 7th European Conf. on Computer Vision, Copenhagen, Denmark, May 2001, vol. 4, 97-112, 2002. Awarded Prize for Best Paper in Cognitive Computer Vision.
 57. Arikan, O. and Forsyth, D.A., "Interactive Motion Generation from Examples," Proc. SIGGRAPH 2002, San Antonio, TX, Jul. 2002, 483-490, 2002.
 58. Parks, D. and Forsyth, D.A., "Improved Integration for Cloth Simulation," Proc. Eurographics 2002, short papers.
 59. Ramanan, D. and Forsyth, D.A., "Finding and Tracking People from the Bottom up," Proc. CVPR 2003, Madison,

- WI, Jun. 2003, vol. 2, 467-474, 2003.
60. Barnard, K., Duygulu, P., Guru1, R., Gabbur, P., and Forsyth, D.A., "The Effects of Segmentation and Feature Choice in a Translation Model of Object Recognition," Proc. CVPR 2003, Madison, WI, Jun. 2003, vol. 2, 675-684, 2003.
 61. Edwards, J., Forsyth, D.A., and White, R., "Words and Pictures in the News," Proc. HLTNAACL03 Workshop on Learning Word Meaning from Non-Linguistic Data, 2003.
 62. Kobus Barnard, Matthew Johnson, and David Forsyth, "Word sense disambiguation with pictures," Workshop on learning word meaning from non-linguistic data, held in conjunction with The Human Language Technology Conference, Edmonton, Canada, May 27-June 1, 2003.
 63. Arikan, O., Forsyth, D.A., and O'Brien, J., "Motion Synthesis from Annotations," SIGGRAPH 2003, San Diego, CA, Jul. 2003, in ACM Transactions on Graphics, vol. 33:3, 402-408, 2003.
 64. Ramanan, D. and Forsyth, D. A. "Automatic Annotation of Everyday Movements," Neural Info. Proc. Systems (NIPS), Vancouver, Canada, Dec. 2003, in Thurn, S., Saul, L.K., and Scholkopf, B. (eds.), Advances in Neural Information Processing Systems 16: Proceedings of the 2003 Conference, 1547-1554, MIT Press, 2004.
 65. Ramanan, D. and Forsyth, D. A. "Using Temporal Coherence to Build Models of Animals," International Conf. on Computer Vision (ICCV), Nice, France, Oct. 2003, vol. 1, 338-345, 2003.
 66. Lobay, A. and Forsyth, D.A., "Recovering shape and irradiance maps from rich dense texton fields," Proc 2004 Conf. on Computer Vision and Pattern Recognition (CVPR), Washington, DC, Jun. 2004, vol. 1, 400-406, 2004. (Acceptance rate: ~26% (260/~1000))
 67. Miller, T., Berg, A., Edwards, J., Maire, M., White, R., Teh, Y-W., Miller, E., and Forsyth, D.A., "Faces and Names in the News," Proc. 2004 Conf. on Computer Vision and Pattern Recognition (CVPR), Washington, DC, Jun. 2004, vol. 2, 848-854, 2004. (Acceptance rate: ~26% (260/~1000))
 68. O. Arikan and D. A. Forsyth and J. O'Brien, "Radiance caching and local geometry correction," SIGGRAPH 2004, Los Angeles, CA, Aug. 2004, Technical Sketch, SIGGRAPH 2004 Conference Presentations DVD-ROM. (Acceptance rate: 17.4%)
 69. Ikemoto, L. and Forsyth, D.A., "Enriching a motion collection by transplanting limbs," Proc. 2004 SIGGRAPH/Eurographics Symposium on Computer Animation, Grenoble, France, Aug. 2004. (Acceptance rate: 17.4%)
 70. J. Edwards, Y-W. Teh, D.A. Forsyth, R. Bock, M. Maire, and G. Vesom, "Making Latin Manuscripts Searchable using gHMM's," Proc. NIPS, 2004. (Acceptance rate not yet available.)
 71. T. Berg, A. Berg, J. Edwards and D.A. Forsyth, "Who's in the picture?" Proc. NIPS, 2004. (Acceptance rate not yet available.)
 72. P. Duygulu, J-Y. Pan and D. A. Forsyth, "Towards Auto-Documentary: Tracking the Evolution of New Stories," ACM Conference on Multimedia, 2004. (Acceptance rates: 16.6%(long papers), 44.9% (short papers))
 73. W. Yan and D.A. Forsyth, "Learning the behaviour of users in a public space through video tracking," IEEE Workshop on Applications of Computer Vision, 2005. (Acceptance rate: 19.3%)
 74. J. Edwards and D.A. Forsyth, "Searching for Character Models," Proc NIPS 2005, in press
 75. N.Loeff and H. Arora and A. Sorokin and D.A. Forsyth, "Efficient unsupervised learning for localization and object detection in categories," Proc NIPS 2005, in press.
 76. O.Arikan and D.A. Forsyth and J. O'Brien, "Fast and detailed approximate global illumination by irradiance decomposition," Proc SIGGRAPH 2005, 1108-1114.
 77. L. Ikemoto, O. Arikan, D. Forsyth "Learning to Move Autonomously in a Hostile World," University of California at Berkeley Technical Report SIGGRAPH 2005 Sketch
 78. Ryan White, Anthony Lobay, D.A. Forsyth "Capturing Cloth," SIGGRAPH Tech Sketch, 2005.
 79. Kenton McHenry, Jean Ponce, David Forsyth, "Finding Glass," Proceedings of the 2005 IEEE Computer Society Conference on Computer Vision and Pattern Recognition (CVPR'05)
 80. Deva Ramanan, D. A. Forsyth, Kobus Barnard, "Detecting, Localizing and Recovering Kinematics of Textured Animals," Proceedings of the 2005 IEEE Computer Society Conference on Computer Vision and Pattern Recognition (CVPR'05)
 81. Deva Ramanan, D. A. Forsyth, Andrew Zisserman "Strike a Pose: Tracking People by Finding Stylized Poses," Proceedings of the 2005 IEEE Computer Society Conference on Computer Vision and Pattern Recognition (CVPR'05) - Volume 1 - Volume 01
 82. Adam G. Kirk, James F. O'Brien, David A. Forsyth, "Skeletal Parameter Estimation from Optical Motion Capture Data," Proceedings of the 2005 IEEE Computer Society Conference on Computer Vision and Pattern Recognition (CVPR'05)
 83. Okan Arikan, David A. Forsyth, James F. O'Brien, "Motion capture and editing: Pushing people around," Proceedings of the 2005 ACM SIGGRAPH/Eurographics symposium on Computer animation SCA '05
 84. L. Ikemoto and O. Arikan and D.A. Forsyth, "Knowing when to put your foot down," Proc Symp. Interactive 3D graphics and Games, 2006.
 85. R. White and D.A. Forsyth, "Retexturing Single Views Using Texture and Shading," ECCV 2006, (in press)
 86. R. White and D.A. Forsyth, "Combining Cues: Shape from Shading and Texture," Proc CVPR 2006, pp1809-1816, 2006

87. A. Farhadi and D. A. Forsyth, "Aligning ASL for Statistical Translation Using a Discriminative Word Model," Proc CVPR 2006, pp1471-1476
88. J. Chan, C. Zifci, D. Forsyth, "Searching Off-line Arabic Documents," Proc CVPR 2006, pp1455-1462, 2006
89. T. Berg and D.A. Forsyth, "Animals on the Web," Proc CVPR 2006
90. C.O. Alm, N.Loeff and D.A. Forsyth, "Challenges for annotating images for sense disambiguation," Proceedings of the Workshop on Frontiers in Linguistically Annotated Corpora 2006, pages 1-4, Sydney, July 2006
91. N.Loeff, C.O. Alm, D.A. Forsyth, "Discriminating image senses by clustering with multimodal features," Proceedings of the COLING/ACL 2006 Main Conference Poster Sessions, pages 547-554, Sydney, July 2006
92. Ryan White, Keenan Crane, David Forsyth, "Data Driven Cloth Animation," SIGGRAPH Technical Sketch, 2007.
93. Ali Farhadi, David Forsyth, Ryan White, "Transfer Learning in Sign Language," IEEE Conference on Computer Vision and Pattern Recognition, 2007
94. Himanshu Arora, Nicolas Loeff, David Forsyth, and Narendra Ahuja, "Unsupervised Segmentation of Objects using Efficient Learning," IEEE Conference on Computer Vision and Pattern Recognition, 2007
95. Nazli Ikizler and David Forsyth, "Searching video for complex activities with finite state models," IEEE Conference on Computer Vision and Pattern Recognition, 2007
96. L. Ikemoto, O. Arikan, D. Forsyth "Quick Transitions with Cached Multi-way Blends," ACM Symposium on Interactive 3D Graphics and Games (I3D) 2007
97. Duan Tran and D. Forsyth, "Configuration Estimates Improve Pedestrian Finding," NIP 2007
98. N.Loeff, D.Ramachandran and D.A. Forsyth, "ManifoldBoost: Stagewise Function Approximation for Fully-, Semi- and Un-supervised Learning", Proc ICML 2008.
99. Gang Wang and D.A. Forsyth, "Object image retrieval by exploiting online knowledge resources". IEEE Computer Vision and Pattern Recognition (CVPR). 2008.
100. Alexander Sorokin, David Forsyth, "Utility data annotation with Amazon Mechanical Turk", In the First IEEE Workshop on Internet Vision at CVPR 08
101. A. Farhadi, I. Endres, D. Hoiem, and D.A. Forsyth, "Describing Objects by their Attributes", CVPR 2009
102. G. Wang, D. Hoiem, and D.A. Forsyth, "Building Text Features for Object Image Classification", CVPR 2009
103. N. Loeff, A. Farhadi, I. Endres and D.A. Forsyth, "Unlabeled data improves word prediction", Int. Conf. Computer Vision (ICCV) 2009
104. A. Farhadi, M. Kamali, I. Endres and D.A. Forsyth, "A Latent Model of Discriminative Aspect", Int. Conf. Computer Vision (ICCV) 2009
105. V. Hedau, D. Hoiem and D.A. Forsyth, "Understanding the layout of cluttered rooms", Int. Conf. Computer Vision (ICCV) 2009
106. G. Wang and D.A. Forsyth, "Joint learning of visual attributes, object classes and visual saliency" Int. Conf. Computer Vision (ICCV) 2009
107. G. Wang, D. Hoiem, D.A. Forsyth, "Learning Image Similarity from Flickr using Stochastic Intersection Kernel Machines", Int. Conf. Computer Vision (ICCV) 2009
108. G. Wang, D. Hoiem, and D.A. Forsyth, "Comparative object similarity for improved recognition with few or no examples ," IEEE Conference on Computer Vision and Pattern Recognition, 2010
109. A. Paviotti, D.A. Forsyth, "Lightness recovery for pictorial surfaces, " Workshop on Color and Reflectance Imaging in Computer Vision at ICCV 2009, 2009
110. A. Paviotti, D.A. Forsyth, "A Lightness Recovery Algorithm for the Multispectral Acquisition of Frescoed Environments, " IEEE Workshop on eHeritage and Digital Art Preservation at ICCV 2009, 2009
111. V. Hedau, D. Hoiem, and D.A. Forsyth "Thinking Inside the Box: Using Appearance Models and Context Based on Room Geometry", ECCV 2010
112. G Wang, A Gallagher, J Luo, D Forsyth, "Seeing People in Social Context: Recognizing People and Social Relationships", Proc ECCV 2010
113. A Farhadi, M Hejrati, M A Sadeghi, P Young, C Rashtchian, J Hockenmaier, D. A. Forsyth, "Every Picture Tells a Story: Generating Sentences from Images" Proc ECCV 2010
114. V. Hedau, D. Hoiem, D.A. Forsyth, "Thinking Inside the Box: Using Appearance Models and Context Based on Room Geometry," Proc ECCV 2010
115. D. Tran and D. A. Forsyth, "Improved Human Parsing with a Full Relational Model", Proc ECCV 2010
116. Varsha Hedau and Derek Hoiem and David Forsyth, "Recovering Free Space of Indoor Scenes from a Single Image", CVPR, 2012
117. Zicheng Liao, Ali Farhadi, Yang Wang, Ian Endres, David Forsyth, "Building a Dictionary of Image Fragments," CVPR 2012
118. Mohammad Rastegari; Ali Farhadi, ; David Forsyth; "Predictable and Discriminative Binary Codes", ECCV 2012
119. Brett Jones, Rajinder Sodhi, David Forsyth, Brian Bailey, Giuliano Maciocci, "Around device interaction for Multiscale Navigation", Mobile HCI 2012, nominated for award.
120. Sodhi, R., Jones, B., Forsyth, D., Bailey, B.P., and Maciocci, G. BeThere: 3D Mobile Collaboration with Spatial Input. ACM CHI, 2013.
121. Non-Parametric Filtering for Geometric Detail Extraction and Material Representation Zicheng Liao, Jason Rock, Yang Wang, David Forsyth Proc. IEEE Conf. on Computer Vision and Pattern Recognition (CVPR), 2013

122. M. A. Sadeghi and D. Forsyth, "Fast Template Evaluation with Vector Quantization", Proc NIPS 2013
123. M.A. Sadeghi and D.A. Forsyth, "30Hz Object Detection with DPM V5", Proc ECCV 2014
124. Karsch, K.; Forsyth, D., "Blind recovery of spatially varying reflectance from a single image," SIGGRAPH Asia Workshop on Indoor Scene Understanding: Where Graphics Meets Vision, 2014
125. Singh, S; Hoiem, D; Forsyth, D., "Learning to Find Landmarks", Proc CVPR 2015
126. Liao, Z; Karsch, K; Forsyth, D; "An Approximate Shading Model for Object Relighting", Proc CVPR 2015
127. Lu, J; Forsyth, D; "Sparse Depth Super Resolution", Proc CVPR 2015
128. Deshpande, A; Rock, J; Forsyth, D; "Learning Large-Scale Automatic Image Colorization", Proc ICCV 2015
129. B R Jones, Rajinder S Sodhi, Pulkit Budhiraja, Kevin Karsch, Brian P Bailey, David Forsyth, Projectibles: Optimizing Surface Color For Projection, Proc UIST 2015
130. S. Singh, D. Hoiem, D.A. Forsyth, "Learning to find little landmarks", Proc CVPR 2016.
131. Swapout: Learning an ensemble of deep architectures Saurabh Singh*, UIUC; Derek Hoiem, UIUC; David Forsyth, UIUC, Proc NIPS 2016.
132. Learning Diverse Image Colorization, *Aditya Deshpande, Jiajun Lu, Mao-Chuang Yeh, Min Jin Chong, David Forsyth*, CVPR 2017
133. SafetyNet: Detecting and Rejecting Adversarial Examples Robustly, Jiajun Lu, Theerasit Issaranon, David Forsyth; ICCV 2017
134. Structural Consistency and Controllability for Diverse Colorization Safa Messaoud; Alexander Schwing; David Forsyth; Proc ECCV 2018
135. Learning Type-Aware Embeddings for Fashion Compatibility, Mariya I. Vasileva, Bryan A. Plummer, Krishna Dusad, Shreya Rajpal, Ranjitha Kumar, David Forsyth; ECCV 2018
136. Max-Sliced Wasserstein Distance and its use for GANs, Ishan Deshpande, Yuan-Ting Hu, Ruoyu Sun, Ayis Pyrros, Nasir Siddiqui, Sanmi Koyejo, Zhizhen Zhao, David Forsyth, Alexander Schwing, CVPR 2019
137. Fast, Diverse and Accurate Image Captioning Guided By Part-of-Speech, Aditya Deshpande, Jyoti Aneja, Liwei Wang, Alexander Schwing, D. A. Forsyth, CVPR 2019
138. Unrestricted Adversarial Examples via Semantic Manipulation, Anand Bhattad, Min Jin Chong, Kaizhao Liang, Bo Li, D. A. Forsyth, Proc ICLR 2019
139. Improving Style Transfer with Calibrated Metrics, Mao-Chuang Yeh, Shuai Tang, Anand Bhattad, Chuhan Zou, David Forsyth; Proceedings of the IEEE/CVF Winter Conference on Applications of Computer Vision (WACV), 2020, pp. 3160-3168
140. Effectively Unbiased FID and Inception Score and Where to Find Them, Min Jin Chong, David Forsyth; Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2020, pp. 6070-6079
141. Why do These Match? Explaining the Behavior of Image Similarity Models. Bryan A. Plummer, Mariya I. Vasileva, Vitali Petsiuk, Kate Saenko, David Forsyth. ECCV, 2020.
142. Dominic Roberts, Ara Danielyan, Hang Chu, Mani Golparvar-Fard, David Forsyth
LSD-StructureNet: Modeling Levels of Structural Detail in 3D Part Hierarchies
ICCV 2021
143. Min Jin Chong, Wen-Sheng Chu, Abhishek Kumar, David Forsyth, Retrieve in Style: Unsupervised Facial Feature Transfer and Retrieval, ICCV 2021
144. V. Vavilala and D.A. Forsyth, Controlled GAN-Based Creature Synthesis via a Challenging Game Art Dataset-Addressing the Noise-Latent Trade-Off, WACV 2022
145. L Wu, J Y Lee, A Bhattad, Y Wang, D. A. Forsyth, "DIVER: Real-time and Accurate Neural Radiance Fields with Deterministic Integration for Volume Rendering," CVPR 2022
146. S. Ghaffari, E. Saleh, D. Forsyth, Y. Wang, "On the Importance of Firth Bias Reduction in Few-Shot Classification", ICLR 2022
147. Mantas Mazeika · Bo Li · David Forsyth, How to Steer Your Adversary: Targeted and Efficient Model Stealing Defenses with Gradient Redirection, ICML 2022
148. Min Jin Chong and David Forsyth, JoJoGAN: One Shot Face Stylization, ECCV 2022
149. Mantas Mazeika, Eric Tang, Andy Zou, Steven Basart, Jun Shern Chan, Dawn Song, David Forsyth, Jacob Steinhardt, Dan Hendrycks How Would The Viewer Feel? Estimating Wellbeing From Video Scenarios, NeurIPS 2022 Track Datasets and Benchmarks, 2022
150. Vaibhav Vavilala. UIUC. David Forsyth. UIUC. "Convex Decomposition of Indoor Scenes", ICCV 2023
151. Yuan Li, Zhi-Hao Lin, David Forsyth, Jia-Bin Huang, Shenlong Wang,
ClimateNeRF: Physically-based Neural Rendering for Extreme Climate Synthesis, ICCV 2023
152. Y. Zhong, A. Bhattad, YX. Wang, D.A. Forsyth, "Improving Equivariance in State-of-the-Art Supervised Depth and Normal Predictors", ICCV 2023
153. Anand Bhattad, Daniel McKee, Derek Hoiem, David Forsyth, "StyleGAN knows Normal, Depth, Albedo and more" *NeurIPS*, 2023
154. Yuzheng Hu, Fan Wu, Qinbin Li, Yunhui Long, Gonzalo Garrido, Chang Ge, Bolin Ding, David Forsyth, Bo Li, Dawn Song, "SoK: Privacy-Preserving Data Synthesis", 2024 IEEE Symposium on Security and Privacy (SP)
155. J. Zhang, S-Y. Chang, K. Li, D.A. Forsyth, "Preserving Image Properties Through Initializations in Diffusion

- Models”, Winter Conference on Applications of Computer Vision 2024.
156. K. Li, J. Zhang, S-Y. Chang, D.A. Forsyth, “Controlling Virtual Try-on Pipeline Through Rendering Policies”, Winter Conference on Applications of Computer Vision 2024.
 157. M. J. Chong, K. K. Singh, Y. Li, J. Lu, D.A. Forsyth, “P2D: Plug and Play Discriminator for accelerating GAN frameworks”, Winter Conference on Applications of Computer Vision 2024
 - 158 Anand Bhattad, D.A. Forsyth, “StyLitGAN: Prompting StyleGAN to Produce New Illumination Conditions”, CVPR 2024
 - 159 Ayush Sarkar, Hanlin Mai, Amitabh Mahapatra, Svetlana Lazebnik, D.A. Forsyth, Anand Bhattad, “Shadows Don’t Lie and Lines Can’t Bend! Generative Models don’t know Projective Geometry...for now”, CVPR 2024
 - 160 Mantas Mazeika, Long Phan, Xuwang Yin, Andy Zou, Zifan Wang, Norman Mu, Elham Sakhaee, Nathaniel Li, Steven Basart, Bo Li, David Forsyth, Dan Hendrycks, “HarmBench: A Standardized Evaluation Framework for Automated Red Teaming and Robust Refusal”, ICML 2024
 - 161 Xiao Zhang · William Gao · Seemantdhara Jain · Michael Maire · David Forsyth · Anand Bhattad, “Latent Intrinsic Emerge from Training to Relight”, NeurIPS, 2024
 - 162 Vaibhav Vavilala, David Forsyth, Faaris Shaik, “Dequantization and Color Transfer with Diffusion Models”, Winter Conference on Applications of Computer Vision, 2025
 - 163 Min Jin Chong, Dejia Xu, Yi Zhang, Zhangyang Wang, David Forsyth, Gurunandan Krishnan, Yicheng Wu, Jian Wang, “Copy or not? Reference-based Face Image Restoration with Focus on Fine Details”, Winter Conference on Applications of Computer Vision, 2025
 - 164 ZH Lin, B Liu, YT Chen, D Forsyth, JB Huang, A Bhattad, S Wang, “Urbanir: Large-scale urban scene inverse rendering from a single video”, 3DV 2025
 - 165 Aditya Prakash, Benjamin E Lundell, Dmitry Andreychuk, David Forsyth, Saurabh Gupta, Harpreet S. Sawhney, “How Do I Do That? Synthesizing 3D Hand Motion and Contacts for Everyday Interactions”, CVPR 2025