

Svetlana Lazebnik

Associate Professor
Department of Computer Science
University of Illinois at Urbana-Champaign
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Research Interests

Object recognition; scene interpretation; joint understanding of images and text; big visual data; deep learning

Education

- May 2006 **Ph.D.** in Computer Science
University of Illinois at Urbana-Champaign
Advisor: Dr. Jean Ponce
Dissertation title: *Local, Semi-Local and Global Models for Texture, Object and Scene Recognition*
- Dec 2002 **M.S.** in Computer Science
University of Illinois at Urbana-Champaign
- June 2000 **B.S.** in Computer Science with Mathematics Minor (Graduation with Highest Honors)
DePaul University, Chicago, IL

Academic Employment

- Aug. 2014 - present **Associate Professor**
Dept. of Computer Science, University of Illinois at Urbana-Champaign
- Jan. 2012 - Aug. 2014 **Assistant Professor**
Dept. of Computer Science, University of Illinois at Urbana-Champaign
- July 2007 - Dec. 2011 **Assistant Professor**
Dept. of Computer Science, University of North Carolina at Chapel Hill
- May 2006 - July 2007 **Post-Doctoral Research Associate**
Dept. of Computer Science, University of Illinois at Urbana-Champaign
- June 2001 - May 2006 **Research Assistant**
Dept. of Computer Science, University of Illinois at Urbana-Champaign

Selected Awards and Honors

- 2016 Longuet-Higgins Prize at CVPR 2016
Awarded for CVPR 2006 paper with significant impact on computer vision research
- 2013 Sloan Research Fellowship
- 2013 C.W. Gear Outstanding Junior Faculty Award
Dept. of Computer Science, University of Illinois
- 2013 Dean's Award for Excellence in Research
College of Engineering, University of Illinois
- 2012, 2010, 2007 CVPR Outstanding Reviewer Award
- 2011 DARPA Computer Science Study Group
- 2009 Microsoft Research Faculty Fellowship
- 2008 NSF CAREER Award
- 2008 Teaching Award, UNC Computer Science Student Association
- 2003 David J. Kuck Best Master's Thesis Award
Dept. of Computer Science, University of Illinois

Publications

Journal Articles

- L. Wang, Y. Li, and S. Lazebnik, “Learning Two-Branch Neural Networks for Image-Text Matching Tasks,” *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 2017, submitted.
- T. Tommasi, A. Mallya, B. Plummer, S. Lazebnik, A. Berg, and T. Berg, “Solving Visual Madlibs with Multiple Cues,” *International Journal of Computer Vision*, 2017, submitted.
- B. Plummer, L. Wang, C. Cervantes, J. Caicedo, J. Hockenmaier, and S. Lazebnik, “Flickr30k Entities: Collecting Region-to-Phrase Correspondences for Richer Image-to-Sentence Models,” *International Journal of Computer Vision*, 2017.
- J. Tighe, M. Niethammer, and S. Lazebnik, “Scene Parsing with Object Instance Inference Using Regions and Per-exemplar Detectors,” *International Journal of Computer Vision*, vol. 112, no. 2 (Special Issue on Scene Understanding), April 2015, pp. 150-171.
- Y. Gong, Q. Ke, M. Isard, and S. Lazebnik, “A Multi-View Embedding Space for Modeling Internet Images, Tags, and Their Semantics,” arXiv:1212.4522, *International Journal of Computer Vision*, vol. 106, no. 2, January 2014, pp. 210-233.
- A. Gordo, F. Perronnin, Y. Gong, and S. Lazebnik, “Asymmetric Distances from Binary Embeddings,” *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 36, no. 1, January 2014, pp. 33-47.
- Y. Gong, S. Lazebnik, Y. Gordo, and F. Perronnin, “Iterative Quantization: A Procrustean Approach to Learning Binary Codes for Large-Scale Image Retrieval,” *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 35, no. 12, December 2013, pp. 2916-2929.
- M. Raginsky, J. Silva, S. Lazebnik, and R. Willett, “A Recursive Procedure for Density Estimation on the Binary Hypercube,” *Electronic Journal of Statistics*, vol. 7, 2013, pp. 820-858.
- J. Tighe and S. Lazebnik, “SuperParsing: Scalable Nonparametric Image Parsing with Superpixels,” *International Journal of Computer Vision*, vol. 101, no. 2, January 2013, pp. 329-349.
- R. Raguram, C. Wu, J.-M. Frahm, and S. Lazebnik, “Modeling and Recognition of Landmark Image Collections Using Iconic Scene Graphs,” *International Journal of Computer Vision*, vol. 95, no. 3, December 2011, pp. 213-239.
- J.-M. Frahm, M. Pollefeys, S. Lazebnik, C. Zach, D. Gallup, B. Clipp, R. Raguram, C. Wu, and T. Johnson, “Fast Robust Large-scale Mapping from Video and Internet Photo Collections,” *ISPRS Journal of Photogrammetry and Remote Sensing*, vol. 65, no. 6 (Special Issue on 100 Years of ISPRS), 2010, pp. 538-549.
- S. Lazebnik and M. Raginsky, “Supervised Learning of Quantizer Codebooks by Information Loss Minimization,” *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 31, no. 7, July 2009, pp. 1294-1309.
- S. Lazebnik, Y. Furukawa, and J. Ponce, “Projective Visual Hulls,” *International Journal of Computer Vision*, vol. 74, no. 2, August 2007, pp. 137-165.
- F. Rothganger, S. Lazebnik, C. Schmid, and J. Ponce, “Segmenting, Modeling, and Matching Video Clips Containing Multiple Moving Objects,” *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 29, no. 3, March 2007, pp. 477-491.
- J. Zhang, M. Marszalek, S. Lazebnik, and C. Schmid, “Local Features and Kernels for Classification of Texture and Object Categories: A Comprehensive Study,” *International Journal of Computer Vision*, vol. 73, no. 2, June 2007, pp. 213-238. **Over 1900 citations on Google Scholar.**
- F. Rothganger, S. Lazebnik, C. Schmid, and J. Ponce, “3D Object Modeling and Recognition Using Local Affine-Invariant Image Descriptors and Multi-View Spatial Constraints,” *International Journal of Computer Vision*, vol. 66, no. 3, March 2006, pp. 231-259.

- S. Lazebnik, C. Schmid, and J. Ponce, “A Sparse Texture Representation Using Local Affine Regions,” *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 27, no. 8, August 2005, pp. 1265-1278. **Over 800 citations on Google Scholar.**
- S. Lazebnik and J. Ponce, “The Local Projective Shape of Smooth Surfaces and Their Outlines,” *International Journal of Computer Vision*, vol. 63, no. 1, June 2005, pp. 65-83.

Edited Volumes

- A. Fitzgibbon, S. Lazebnik, P. Perona, Y. Sato, and C. Schmid (eds.), *Proceedings of the 12th European Conference on Computer Vision*, Part I-VII. Lecture Notes in Computer Science vol. 7572-7578, Springer-Verlag, Berlin, Heidelberg, 2012.

Invited Papers and Book Chapters

- J. Tighe and S. Lazebnik, “Towards Open-Universe Image Parsing with Broad Coverage,” *Proceedings of IAPR International Conference on Machine Vision Applications*, 2013.
- J.-M. Frahm, M. Pollefeys, S. Lazebnik, B. Clipp, D. Gallup, R. Raguram, and C. Wu, “Robust Reconstruction of Large-Scale Environments,” *44th Annual Conference on Information Sciences and Systems*, invited session on 3D Data Acquisition and Analysis, 2010.
- S. Lazebnik, C. Schmid, and J. Ponce, “Spatial Pyramid Matching,” *Object Categorization: Computer and Human Vision Perspectives*, S. Dickinson, A. Leonardis, B. Schiele, and M. Tarr (eds.), Cambridge University Press, 2009, pp. 401-415.
- J. Ponce, T. L. Berg, M. Everingham, D. A. Forsyth, M. Hebert, S. Lazebnik, M. Marszalek, C. Schmid, B. C. Russell, A. Torralba, C. K. I. Williams, J. Zhang, and A. Zisserman, “Dataset Issues in Object Recognition,” *Toward Category-Level Object Recognition*, Springer-Verlag Lecture Notes in Computer Science vol. 4170. J. Ponce, M. Hebert, C. Schmid, and A. Zisserman (eds.), 2006, pp. 29-48.
- S. Lazebnik, C. Schmid, and J. Ponce, “A Discriminative Framework for Texture and Object Recognition Using Local Image Features,” *Toward Category-Level Object Recognition*, Springer-Verlag Lecture Notes in Computer Science vol. 4170. J. Ponce, M. Hebert, C. Schmid, and A. Zisserman (eds.), 2006, pp. 423-442.
- F. Rothganger, S. Lazebnik, C. Schmid, and J. Ponce, “3D Object Modeling and Recognition from Photographs and Image Sequences,” *Toward Category-Level Object Recognition*, Springer-Verlag Lecture Notes in Computer Science vol. 4170. J. Ponce, M. Hebert, C. Schmid, and A. Zisserman (eds.), 2006, pp. 105-126.
- C. Schmid, G. Dorko, S. Lazebnik, K. Mikolajczyk, and J. Ponce, “Pattern Recognition with Local Invariant Features,” *Handbook of Pattern Recognition and Computer Vision*, 3rd edition, C.H. Chen and P.S.P Wang (eds.), World Scientific Publishing Co., 2005, pp. 71-92.
- J. Ponce, S. Lazebnik, F. Rothganger, and C. Schmid, “Toward True 3D Object Recognition,” *Congrès de Reconnaissance des Formes et Intelligence Artificielle*, Toulouse, France, January 2004.
- J. Ponce, F. Rothganger, S. Lazebnik, K. McHenry, C. Schmid, S. Mahamud, and M. Hebert, “3D Photography from Photographs and Video Clips,” *Proceedings of the International Symposium on Core Research for Evolutional Science, Technology (CREST) — Ikeuchi Project*, Tokyo, Japan, 2003, pp. 153-182.

Refereed Conference and Workshop Papers

- L. Wang, A. Schwing, and S. Lazebnik, “Diverse and Accurate Image Description Using a Variational Auto-Encoder with an Additive Gaussian Encoding Space,” *Advances in Neural Information Processing Systems*, 2017.
- A. Mallya and S. Lazebnik, “Recurrent Models for Situation Recognition,” *Proceedings of the IEEE International Conference on Computer Vision*, 2017.
- B. Plummer, A. Mallya, C. Cervantes, J. Hockenmaier, and S. Lazebnik, “Phrase Localization and Visual Relationship Detection with Comprehensive Image-Language Cues,” *Proceedings of the IEEE International Conference on Computer Vision*, 2017.

- B. Plummer, M. Brown, and S. Lazebnik, “Enhancing Video Summarization via Vision-Language Embedding,” *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, 2017.
- T. Tommasi, A. Mallya, B. Plummer, S. Lazebnik, A. Berg, and T. Berg, “Solving Visual Madlibs with Multiple Cues,” *Proceedings of the British Machine Vision Conference*, 2016.
- A. Mallya and S. Lazebnik, “Learning Models for Actions and Person-Object Interactions with Transfer to Question Answering,” *Proceedings of the European Conference on Computer Vision*, 2016.
- L. Wang, Y. Li, and S. Lazebnik, “Learning Deep Structure-Preserving Image-Text Embeddings,” *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, 2016.
- Y. Lu, T. Javidi, and S. Lazebnik, “Adaptive Object Detection Using Adjacency and Zoom Prediction,” *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, 2016.
- B. Plummer, L. Wang, C. Cervantes, J. Caicedo, J. Hockenmaier, and S. Lazebnik, “Flickr30k Entities: Collecting Region-to-Phrase Correspondences for Richer Image-to-Sentence Models,” *Proceedings of the International Conference on Computer Vision*, 2015. *Acceptance rate: 31%*.
- A. Mallya and S. Lazebnik, “Learning Informative Edge Maps for Indoor Scene Layout Prediction,” *Proceedings of the International Conference on Computer Vision*, 2015. *Acceptance rate: 31%*.
- J. Caicedo and S. Lazebnik, “Active Object Localization with Deep Reinforcement Learning,” *Proceedings of the International Conference on Computer Vision*, 2015. *Acceptance rate: 31%*.
- H. Kiapour, X. Han, S. Lazebnik, A. Berg, and T. Berg, “Where to Buy It: Matching Street Clothing Photos in Online Shops,” *Proceedings of the International Conference on Computer Vision*, 2015. *Oral, acceptance rate: 3.3%*.
- Y. Gong, L. Wang, M. Hodosh, J. Hockenmaier, and S. Lazebnik, “Improving Image-Sentence Embeddings Using Large Weakly Annotated Photo Collections,” *Proceedings of the European Conference on Computer Vision*, 2014, pp. 529-545. *Acceptance rate: 29%*.
- Y. Gong, L. Wang, R. Guo, and S. Lazebnik, “Multi-Scale Orderless Pooling of Deep Convolutional Activation Features,” *Proceedings of the European Conference on Computer Vision*, 2014, pp. 392-407. *Acceptance rate: 29%*.
- J. Tighe, M. Niethammer, and S. Lazebnik, “Scene Parsing with Object Instances and Occlusion Ordering,” *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, 2014, pp. 3748 - 3755. *Acceptance rate: 29%*.
- J. Tighe and S. Lazebnik, “Finding Things: Image Parsing with Regions and Per-Exemplar Detectors,” *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, 2013, pp. 3001 - 3008. *Oral, acceptance rate: 3.2%*.
- Y. Gong, S. Kumar, H. Rowley, and S. Lazebnik, “Learning Binary Codes for High-Dimensional Data Using Bilinear Projections,” *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, 2013, pp. 484 - 491. *Acceptance rate: 25.2%*.
- Y. Gong, S. Kumar, V. Verma and S. Lazebnik, “Angular Quantization-Based Binary Codes for Fast Similarity Search,” *Advances in Neural Information Processing Systems*, 2012.
- J. Tighe and S. Lazebnik, “Understanding Scenes on Many Levels,” *Proceedings of the International Conference on Computer Vision*, 2011, pp. 335-342. *Acceptance rate: 24%*.
- M. Pandey and S. Lazebnik, “Scene Recognition and Weakly Supervised Object Localization with Deformable Part-Based Models,” *Proceedings of the International Conference on Computer Vision*, 2011, pp. 1307-1314. *Acceptance rate: 24%*.
- Y. Gong and S. Lazebnik, “Iterative Quantization: A Procrustean Approach to Learning Binary Codes,” *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, 2011, pp. 817-824. *Oral, acceptance rate: 3.5%*.

- Y. Gong and S. Lazebnik, “Comparing Data-Dependent and Data-Independent Embeddings for Classification and Ranking of Internet Images,” *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, 2011, pp. 2633-2640. *Acceptance rate: 26.4%*.
- J. Tighe and S. Lazebnik, “SuperParsing: Scalable Nonparametric Image Parsing with Superpixels,” *Proceedings of the European Conference on Computer Vision*, 2010, vol. 5, pp. 352-365. *Acceptance rate: 27.7%*.
- J.-M. Frahm, P. Georgel, D. Gallup, T. Johnson, R. Raguram, C. Wu, Y.-H. Jen, E. Dunn, B. Clipp, S. Lazebnik, and M. Pollefeys, “Building Rome on a Cloudless Day,” *Proceedings of the European Conference on Computer Vision*, 2010, vol. 4, pp. 368-381. *Acceptance rate: 27.7%*.
- M. Raginsky and S. Lazebnik, “Locality Sensitive Binary Codes from Shift-Invariant Kernels,” *Advances in Neural Information Processing Systems*, 2009, pp. 1509-1517. *Acceptance rate: 24%*.
- S. Lazebnik and M. Raginsky, “An Empirical Bayes Approach to Contextual Region Classification,” *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, 2009, pp. 2380-2387. *Acceptance rate: 26.2%*.
- M. Raginsky, S. Lazebnik, R. Willett, and J. Silva, “Near-Minimax Recursive Density Estimation on the Binary Hypercube,” *Advances in Neural Information Processing Systems*, 2008, pp. 1305-1312.
- X. Li, C. Wu, C. Zach, S. Lazebnik, and J.-M. Frahm, “Modeling and Recognition of Landmark Image Collections Using Iconic Scene Graphs,” *Proceedings of the European Conference on Computer Vision*, 2008, vol. 1, pp. 427-440. *Acceptance rate: 27.9%*.
- B. Davis and S. Lazebnik, “Analysis of Human Attractiveness Using Manifold Kernel Regression,” *International Conference on Image Processing (special session on aesthetics, mood, and emotion)*, 2008, pp. 109-112.
- R. Raguram and S. Lazebnik, “Computing Iconic Summaries of General Visual Concepts,” *First IEEE Workshop on Internet Vision (in conjunction with CVPR)*, 2008.
- S. Lazebnik and M. Raginsky, “Learning Nearest-Neighbor Quantizers from Labeled Data by Information Loss Minimization,” *Proceedings of the International Conference on Artificial Intelligence and Statistics*, 2007, vol. 2, pp. 251-258. *Acceptance rate: 56.7%*.
- S. Lazebnik, C. Schmid, and J. Ponce, “Beyond Bags of Features: Spatial Pyramid Matching for Recognizing Natural Scene Categories,” *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, New York, June 2006, vol. 2, pp. 2169-2178. *Oral, acceptance rate: 4.8%. Over 6400 citations on Google Scholar.*
- J. Zhang, M. Marszalek, S. Lazebnik, and C. Schmid, “Local Features and Kernels for Classification of Texture and Object Categories: A Comprehensive Study,” *Beyond Patches Workshop (in conjunction with CVPR)*, 2006.
- M. Raginsky and S. Lazebnik, “Estimation of Intrinsic Dimensionality Using High-Rate Vector Quantization,” *Advances in Neural Information Processing Systems* 18, MIT Press, 2006, pp. 1105-1112. *Acceptance rate: 25%*.
- S. Lazebnik, C. Schmid, and J. Ponce, “A Maximum Entropy Framework for Part-Based Texture and Object Recognition,” *Proceedings of the IEEE International Conference on Computer Vision*, Beijing, China, October 2005, vol. 1, pp. 832-838. *Acceptance rate: 19.8%*.
- S. Lazebnik, C. Schmid, and J. Ponce, “Semi-Local Affine Parts for Object Recognition,” *Proceedings of the British Machine Vision Conference*, Kingston, UK, September 2004, vol. 2, pp. 959-968. *Oral, acceptance rate: 15%*.
- F. Rothganger, S. Lazebnik, C. Schmid, and J. Ponce, “Segmenting, Modeling, and Matching Video Clips Containing Multiple Moving Objects,” *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, Washington, DC, June 2004, vol. 2, pp. 914-921. *Acceptance rate: 29.8%*.

- S. Lazebnik, C. Schmid, and J. Ponce, “Affine-Invariant Local Descriptors and Neighborhood Statistics for Texture Recognition,” *Proceedings of the International Conference on Computer Vision*, Nice, France, October 2003, pp. 649-655. *Acceptance rate: 20.6%*.
- S. Lazebnik and J. Ponce, “The Local Projective Shape of Smooth Surfaces and Their Outlines,” *Proceedings of the International Conference on Computer Vision*, Nice, France, October 2003, pp. 83-89. *Acceptance rate: 20.6%*.
- S. Lazebnik, C. Schmid, and J. Ponce, “A Sparse Texture Representation Using Affine-Invariant Regions,” *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, Madison, WI, June 2003, Vol. II, pp. 319-324. *Oral: acceptance rate 6.6%*.
- F. Rothganger, S. Lazebnik, C. Schmid, and J. Ponce, “3D Object Modeling and Recognition Using Affine-Invariant Patches and Multi-View Spatial Constraints,” *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, Madison, WI, June 2003, Vol. II, pp. 272-277. *Oral: acceptance rate 6.6%*.
- S. Lazebnik, A. Sethi, C. Schmid, D. Kriegman, J. Ponce, and M. Hebert, “On Pencils of Tangent Planes and the Recognition of Smooth 3D Shapes from Silhouettes,” *Proceedings of the European Conference on Computer Vision*, Copenhagen, Denmark, May 2002. Springer-Verlag Lecture Notes in Computer Science, vol. 2352, pp. 651-665. *Acceptance rate: 37.7%*.
- S. Lazebnik, E. Boyer, and J. Ponce, “On Computing Exact Visual Hulls of Solids Bounded by Smooth Surfaces,” *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, Kauai, Hawaii, December 2001, Vol. 1, pp. 156-161. *Oral, acceptance rate: 8.5%*.

Theses

- S. Lazebnik, *Local, Semi-Local and Global Models for Texture, Object and Scene Recognition*, Ph.D. Dissertation, University of Illinois at Urbana-Champaign, May 2006.
- S. Lazebnik, *Projective Visual Hulls*, M.S. Thesis, University of Illinois at Urbana-Champaign, December 2002.

Technical Reports

- L. Wang, C.-Y. Lee, Z. Tu, and S. Lazebnik, “Training deeper convolutional networks with deep supervision,” arXiv preprint arXiv:1505.02496, 2015.
- S. Divvala, A. Efros, M. Hebert, and S. Lazebnik, “Unsupervised Patch-based Context from Millions of Images,” CMU-RI-TR-11-38, 2011.
- S. Lazebnik, “Visibility-Based Pursuit Evasion in Three-Dimensional Environments,” Beckman CVR Technical Report 2001-01.

Invited Talks

- *Beyond Scene Classification: Understanding Scenes by Describing Them*, CVPR Scene Understanding Workshop, Las Vegas, June 26, 2016
- *Image Description: From Image-Sentence Embeddings to Region-Phrase Correspondence*, ICCV Workshop on Closing the Loop between Vision and Language, Santiago, Chile, December 17, 2015
- *Broad-Coverage Scene Parsing with Object Instances and Occlusion Ordering*, UT Austin, April 4, 2014
- *Image Parsing*, International Computer Vision Summer School, Calabria, Italy, July 17, 2013
- *Towards Open Universe Image Parsing with Broad Coverage*, keynote, IAPR International Conference on Machine Vision Applications, Kyoto, Japan, May 21, 2013
- *Finding Things: Image Parsing with Regions and Per-Exemplar Detectors*
 - Cornell University, May 3, 2013
 - Johns Hopkins Center for Imaging Science Seminar, April 30, 2013
 - WILLOW group seminar, Paris, France, March 21, 2013

- *Understanding Scenes with Superpixels and Object Detectors*
 - University of Washington, August 20, 2012
 - Microsoft Research Redmond, August 16, 2012
 - CMU VASC Seminar, April 9, 2012
- *Similarity-Preserving Binary Codes for Scalable Image Search*
 - Purdue University Machine Learning Seminar, April 17, 2012
 - Information Theory and Applications Workshop, San Diego, February 7, 2012
- *Modeling and Recognizing the Content of Open-Universe Image Collections*
 - Army Research Lab, December 5, 2011
 - University of Illinois at Urbana-Champaign, June 30, 2011
 - University of Minnesota, February 14, 2011
- *Understanding Scenes on Many Levels* (invited poster), Workshop on Frontiers in Computer Vision, MIT, August 22, 2011
- *Large-Scale Nonparametric Image Parsing*, CVPR 2011 Workshop on Large-Scale Learning for Vision, June 20, 2011
- *SuperParsing: Scalable Nonparameteric Parsing with Superpixels* (invited poster), Janelia Farm Workshop on Computer Vision and Neuroscience, November 15, 2010
- *Iconic Images*
 - Internet Vision Workshop, Banff, Canada, September 2, 2009
 - ICCV Area Chair Workshop, Kyoto University, June 8, 2009
 - CVPR Area Chair Workshop, Georgia Tech, February 23, 2009
- *Combining Appearance and Geometry for Efficient Scene Recognition*, IEEE Workshop on Visual Place Categorization, Miami, Florida, June 21, 2009
- *Representing Internet Photo Collections with Iconic Images*, Microsoft Research Redmond, June 30, 2008
- *An Empirical Bayes Approach to Contextual Region Classification*, Fourth International Workshop on Object Recognition, Lake Como, Italy, May 16, 2008
- *Exploring Image Data with Quantization-Based Techniques*, IPAM Workshop on Numerical Tools and Fast Algorithms for Massive Data Mining, Search Engines and Applications, UCLA, October 25, 2007
- *Object and Scene Recognition with Bags of Features and Spatial Pyramids*
 - Carnegie Mellon University, May 2, 2007
 - Microsoft Research, Redmond, April 16, 2007
 - University of California at San Diego, April 9, 2007
 - AT&T Research, April 5, 2007
 - New York University, April 4, 2007
 - State University of New York at Stony Brook, March 14, 2007
 - Kodak Research, March 7, 2007
 - University of Rochester, March 5, 2007
 - Duke University, February 28, 2007
 - University of North Carolina at Chapel Hill, February 26, 2007
- *Fun with Nearest-Neighbor Quantizers*, Carnegie Mellon University, VASC seminar, October 30, 2006
- *Improving Bag-of-Features Image Classification*, ETH Zurich, BIWI group seminar, September 12, 2006
- *The Beauty of Local Invariant Features*

- Third Sicily Workshop on Object Recognition, September 21, 2006
- Workshop on Visual Learning and Recognition, Institute for Mathematics and Its Applications, University of Minnesota, May 22, 2006
- *Local, Semi-Local and Global Models for Texture, Object and Scene Recognition*
 - University of Washington, April 13, 2006
 - University of Texas at Austin, March 28, 2006
 - Stanford University, March 6, 2006
 - University of Wisconsin at Madison, February 27, 2006
- *Local Image Features for Recognizing Textures, Objects, and Scenes*
 - Toyota Technical Institute, Chicago, February 2, 2006
 - Microsoft Research, Redmond, December 12, 2005
- *A Maximum Entropy Framework for Part-Based Texture and Object Recognition*
 - Snowbird Learning Workshop, April 6, 2005 (invited poster)
 - Workshop on Visual Recognition/Pattern Classification, Mathematical Sciences Research Institute, Berkeley, March 21, 2005
- *From Textons to Parts: Learning Texture and Object Representations Based on Local Image Features*
 - MIT Computer Science and Artificial Intelligence Lab, August 16, 2005
 - Stanford University, March 22, 2005
 - Xerox Research Centre Europe, February 22, 2005
- *Semi-Local Parts and Their Relations for Object Recognition,*
 - INRIA Rhône-Alpes, February 21, 2005
 - Second Sicily Workshop on Object Recognition, October 11, 2004
- *Learning Local Affine Representations for Texture and Object Recognition*
 - Microsoft Research, Cambridge, September 6, 2004
 - Oxford University Robotics Research Group Seminar, August 31, 2004
 - CalTech Vision Group Seminar, April 13, 2004
 - Snowbird Learning Workshop, April 8, 2004
- *Texture Recognition Using Affine-Invariant Regions,*
 - INRIA Rhône-Alpes, October 23, 2003
 - First Sicily Workshop on Object Recognition, September 10, 2003

Teaching Experience

University of Illinois at Urbana-Champaign

Fall 2016	CS 440/ECE 448: Artificial Intelligence
Spring 2016	CS 543/ECE 549: Computer Vision
Fall 2015	CS 440/ECE 448: Artificial Intelligence
Spring 2015	CS 440/ECE 448: Artificial Intelligence
Spring 2014	CS 543/ECE 549: Computer Vision
Fall 2013	CS 440/ECE 448: Artificial Intelligence
Spring 2013	CS 543/ECE 549: Computer Vision
Fall 2012	CS 440/ECE 448: Artificial Intelligence

University of North Carolina at Chapel Hill

Fall 2011	COMP 590-096: Artificial Intelligence
Spring 2011	COMP 776: Computer Vision
Fall 2010	COMP 590-096: Artificial Intelligence
Spring 2010	COMP 776: Computer Vision
Fall 2009	COMP 875: Machine Learning Methods for Image Analysis
Spring 2009	COMP 776: Computer Vision
Fall 2008	COMP 790-096: Computational Photography
Spring 2008	COMP 776: Computer Vision – <i>winner of UNC CSSA Teaching Award</i>
Fall 2007	COMP 790-096: Computer Vision and the Web

Mentoring

Ph.D. Advisees

- Bryan Plummer (U of I, passed prelim)
- Liwei Wang (U of I, passed prelim)
- Arun Mallya (U of I, M.S. 2014, Siebel Scholar class of 2013)
- Yunchao Gong (UNC, Ph.D. 2014, winner of 2013 Google Ph.D. Fellowship in Machine Perception, now at Snapchat)
- Joseph Tighe (UNC, Ph.D. 2013, now at Amazon)

M.S. Advisees

- Cecilia Mauceri (U of I, M.S. 2015)
- Mariyam Khalid (U of I, M.S. 2014)
- Hongtao Huang (UNC, M.S. 2013)
- Megha Pandey (UNC, M.S. 2011)
- Anson Liang (UNC, co-advised with Jan-Michael Frahm, M.S. 2011)
- Xiaowei Li (UNC, co-advised with Jan-Michael Frahm, M.S. 2010)

Ph.D. Committees

- U of I: Zicheng Liao, Scott Chen (ECE), Amin Sadeghi, Zhicheng Yan, Saurabh Singh, Daphne Tsatsoulis, Kevin Shih, Qieyun Dai
- UNC: Stephen Guy, Changchang Wu, Brian Clipp, David Gallup, Ilknur Kabul, Li Guan, Seon Joo Kim, Hadi Kiapour
- Duke: Susanna Ricco, Steve Gu

Post-Doctoral Scholars

- Tatiana Tommasi (UNC, co-advised with Alex and Tamara Berg, 2015-2016)
- Juan Caicedo (2012-2014)

Research Grants

- S. Lazebnik (PI), RI: Medium: Collaborative Research: Text-to-Image Reference Resolution for Image Understanding and Manipulation, National Science Foundation, \$275,000, 6/1/2016-5/31/2019.
- S. Lazebnik (co-PI), Google Research Award (PI: Julia Hockenmaier), \$29,130, 2016.
- S. Lazebnik (PI), Adobe, unrestricted gift, \$10,000, 2016.
- S. Lazebnik (PI), Xerox University Affairs Committee Grant, \$90,000, 2014-2016.

- S. Lazebnik (co-PI), CIF: Medium: Collaborative Research: Nonasymptotic Analysis of Feature-Rich Decision Problems with Applications to Computer Vision (PI: Maxim Raginsky), National Science Foundation, \$334,805, 7/1/2013-6/30/2017.
- S. Lazebnik (PI), Sloan Research Fellowship: \$50,000, 2013.
- S. Lazebnik (PI), DARPA Computer Science Study Group: Vision Methods for Open-Universe Data Sets. Phase I: \$100,000, 4/2011 - 4/2012. Phase II: \$400,000, 4/2012 - 4/2014.
- S. Lazebnik (PI), Xerox University Affairs Committee Grant, \$60,000, 1/1/2010 - 12/31/2012.
- S. Lazebnik (co-PI), RI: Small: Modeling and Recognition of Landmarks and Urban Environments (PI: Jan-Michael Frahm), National Science Foundation, \$450,000, 09/1/2009 - 8/31/2012.
- S. Lazebnik (PI), Microsoft Research Faculty Fellowship, \$200,000, 2009.
- S. Lazebnik (PI), CAREER: Similarity-Based Representation of Large-Scale Image Collections, National Science Foundation, \$500,000, 8/1/2009 - 7/31/2014.
- S. Lazebnik (co-PI), Density Estimation and Anomaly Detection in Large Social Networks (PI: Rebecca Willett), Army Research Office, \$30,000, 6/1/2009-5/31/2012.
- S. Lazebnik (co-PI), CRI:IAD Integrated Projector-Camera Modules for the Capture and Creation of Wide-Area Immersive Experiences (PI: Henry Fuchs), National Science Foundation, \$310,000, 4/1/2008-3/31/2011.
- S. Lazebnik (PI), Junior Faculty Development Award, University of North Carolina at Chapel Hill, \$7,500, 1/1/08-12/31/08.

Professional Service

- Associate editor:
 - International Journal of Computer Vision (since 2009)
 - IEEE Transactions on Pattern Analysis and Machine Intelligence (since 2014)
- Conference program chair: European Conference on Computer Vision, 2012
- Conference workshop chair: IEEE Conference on Computer Vision and Pattern Recognition, 2016
- Conference area chair:
 - IEEE Conference on Computer Vision and Pattern Recognition, 2009, 2011, 2013, 2014, 2015
 - IEEE International Conference on Computer Vision, 2009 and 2011
 - Neural Information Processing Systems, 2015
 - European Conference on Computer Vision, 2016
- Conference session chair:
 - IEEE Conference on Computer Vision and Pattern Recognition, 2009 and 2011
 - IEEE International Conference on Computer Vision, 2011
- Conference awards committee: IEEE Conference on Computer Vision and Pattern Recognition, 2015 and 2016
- Invited session/workshop co-organizer:
 - 2013 Annual Allerton Conference on Communication, Control and Computing invited session, “Active Learning, Search, and Visual Recognition”
 - NIPS 2010 workshop, “Beyond Classification: Machine Learning for Next Generation Computer Vision challenges”
- Conference reviewing (regular):
 - IEEE Conference on Computer Vision and Pattern Recognition

- IEEE International Conference on Computer Vision
- European Conference on Computer Vision
- Advances in Neural Information Processing Systems
- Journal reviewing (regular):
 - Journal of Machine Learning Research
 - International Journal of Computer Vision
 - IEEE Transactions on Pattern Analysis and Machine Intelligence
 - IEEE Transactions on Image Processing
- Workshop program committees:
 - CVPR Scene Understanding Workshop, 2013
 - ICCV Workshop on 3D Representations for Recognition, 2007, 2009, 2011
 - ECCV Workshop on Reconstruction and Modeling of Large-Scale 3D Virtual Environments, 2010
 - CVPR Workshop on Advancing Computer Vision with Humans in the Loop, 2010
 - CVPR Joint Workshop on Visual and Contextual Learning, and Visual Scene Analysis, 2009
 - CVPR Workshop on Feature Detectors and Descriptors, 2009
 - International Workshop on Internet Vision, 2008 and 2009
 - International Workshop on Semantic Learning Applications in Multimedia, 2008 and 2009
- Panelist: NSF CISE, 2008, 2009, 2010, 2012, 2016
- Member of IEEE (Institute of Electrical and Electronics Engineers) since 1999, senior member since 2016

University Service

University of Illinois at Urbana-Champaign

- AI group area chair, fall 2016 - present
- CS advisory committee, fall 2016 - present
- Faculty hiring committee, fall 2013 - present
- Graduate study committee, fall 2015 - spring 2016
- Appeals, capricious grading, and student petitions committee, fall 2013 - spring 2014
- Fellowships, assistantships, and admissions committee, fall 2012 - spring 2013
- Undergraduate study committee, fall 2012 - spring 2013
- CSE fellowship selection panel, spring 2012

University of North Carolina at Chapel Hill

- Graduate admissions committee, August 2007 - December 2011

Professional Development

- University of Illinois Academy for Excellence in Engineering Education (AE3) FastStart/Teaching College program, fall 2012 - spring 2013.