Boris Babenko

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EDUCATION

University of California, San Diego
Ph.D. Computer Science and Engineering — September 2006 - September 2011 (expected)
Advisor: Dr. Serge Belongie

Relevant coursework (title/grade): Probabilistic AI/A-, Computer Vision/A, Intro to Machine Learning/A, Computer Vision Seminar/A, Learning Theory/A, Complexity and Computability/A

B.S. Computer Science and Engineering, *Summa Cum Laude* — September 2002 - June 2006

Relevant coursework (title/grade): Project in Vision and Learning/A, Applied Statistics and Probability/A, Image Processing/A+, Algorithm Design and Analysis/A+, Theory of Computability/A+, Compiler Design/A+, Advanced Data Structures/A, Project in Bioinformatics/A, Statistical Methods/A.

RESEARCH INTERESTS

Computer vision and machine learning.

RESEARCH & INDUSTRY EXPERIENCE

University of California, San Diego — September 2006 - Present
Vision & Learning Graduate Student Researcher, Dr. Serge Belongie's Lab.

BioImagene, Sunnyvale — April 2010 - June 2010
Computer Vision Consultant.

Google, Santa Monica — July 2009 - September 2009
Software Intern in the Machine Vision group; worked on Google Goggles Project.

New Media Search, San Diego — August 2008
Computer Vision Consultant.

Honda Research Institute, Mountain View — June 2007 - September 2007
Research Intern under Dr. Ming-Hsuan Yang.

University of California, San Diego — January 2006 - September 2006
Vision & Learning Undergraduate Student Researcher, Dr. Serge Belongie's Lab.

University of California, San Diego — March 2005 - January 2006
Bioinformatics Undergraduate Student Researcher, Dr. Eleazar Eskin's Lab.

Parity Computing, San Diego — July 2004 - April 2006
Software Development Intern.

JOURNAL ARTICLES

B. Babenko, M. H. Yang, S. Belongie, "Visual Tracking with Online Multiple Instance Learning", accepted, *IEEE Transactions on Pattern Analysis and Machine Intelligence* (TPAMI), 2010.

PAPERS IN REVIEWED PROCEEDINGS

S. Branson, C. Wah, F. Schroff, B. Babenko, P. Welinder, P. Perona and S. Belongie, "Visual Recognition with Humans in the Loop", Oral Presentation, *European Conference on Computer Vision* (ECCV), 2010.

B. Sabata, B. Babenko, R. Monroe, C. Srinivas "Automated Analysis of PIN-4 Stained Prostate Needle Biopsies", *Prostate Cancer Imaging Workshop*, in conjunction with MICCAI, 2010.

B. Babenko, Steve Branson, S. Belongie, "Similarity Metrics for Categorization: from Monolithic to Category Specific", Oral Presentation, *International Conference on Computer Vision* (ICCV), 2009.

B. Babenko, M. H. Yang, S. Belongie, "A Family of Online Boosting Algorithms", *Online Learning for Computer Vision Workshop* (OLCV), 2009.

B. Babenko, M. H. Yang, S. Belongie, "Visual Tracking with Online Multiple Instance Learning", Oral Presentation, *Computer Vision and Pattern Recognition* (CVPR), 2009.

P. Dollár, B. Babenko, S. Belongie, P. Perona and Z. Tu, "Multiple Component Learning for Object Detection", *European Conference on Computer Vision* (ECCV), 2008.

B. Babenko, P. Dollár , Z. Tu and S. Belongie, "Simultaneous Learning and Alignment: Multi-Instance and Multi-Pose Learning", *ECCV Workshop: Faces in Real-Life Images*, 2008.

C. Galleguillos, B. Babenko, A. Rabinovich, S. Belongie, "Weakly Supervised Object Recognition and Localization with Stable Segmentations", *European Conference on Computer Vision* (ECCV), 2008.

B. Babenko, P. Dollár and S. Belongie, "Task Specific Local Region Matching", *International Conference on Computer Vision* (ICCV), 2007.

N. Ben-Haim, B. Babenko, and S. Belongie, "Improving Web-based Image Search via Content Based Clustering", *CVPR Workshop: International Workshop on Semantic Learning Applications in Multimedia* (SLAM), 2006.

PROFESSIONAL ACTIVITIES

Reviewer: TPAMI (2008, 2009, 2010), CVPR (2009, 2010), ICCV 2009

PRESENTATIONS

"Learning with Ambiguity in Computer Vision", *invited talk at Google, Santa Monica*, September 2009.

"Multiple Instance Learning with Query Bags", *invited talk at the Caltech Vision Group*, February 2009.

"Multiple Instance Learning with Query Bags", *UCSD AI Seminar*, January 2009.

"Multiple Instance Learning: Algorithms and Applications", *UCSD Research Exam*, October 2008.

"Multiple Component Learning for Object Detection", *COSMAL Poster Session*, June 2008.

"Multiple Component Learning for Object Detection", *UCSD Pixel Cafe*, February 2008.

"Task Specific Local Region Matching", *invited talk at Nokia Research Center*, September 2007.

"Task Specific Local Region Matching", *invited talk at Google, Mountain View*, August 2007.

"Task Specific Local Region Matching", *invited talk at the Caltech Vision Group*, March 2007.

"Improving Web-based Image Search via Content Based Clustering", *UCSD Undergraduate Research Conference*, May 2006.

"Improving Web-based Image Search via Content Based Clustering". *Engineering Undergrad Research "Konference" and Assembly* (EUReKA), February 2006.

AWARDS & HONORS

Google Fellowship in Computer Vision, 2010

Google Research Grant, 2009 (co-author).

NSF IGERT Fellowship Award, 2007-2009.

CalIT^2 Undergraduate Summer Research Scholarship, 2006.

"Best Poster" Award, *Engineering Undergrad Research "Konference" and Assembly* (EUReKA), 2006.

Malcolm R. Stacey Memorial Scholarship, for Academic Merit, 2005.

William Stout Scholarship, for Academic Merit, 2003

SKILLS

Experienced with Matlab and C++ development on both Windows (Microsoft Visual Studio) and Unix.