

Alexander C. Berg

1418 Computer Science
Stony Brook University
Stony Brook NY, 11794

aberg@cs.stonybrook.edu
<http://acberg.com/alex>
(646) 460-7401

EDUCATION

Ph.D. "Shape Matching and Object Recognition."
December 2005, Computer Science, U.C. Berkeley
M.A. 1994, Mathematics, Johns Hopkins University
B.A. 1994, Mathematics, Johns Hopkins University
Class of 1992, Montgomery Blair High School

RESEARCH AND EXPERIENCE

Assistant Professor (Tenure Track)
Department of Computer Science

Stony Brook University
Stony Brook, NY, USA
Sept. 2010 – present

Performing research on a variety of subjects related to computer vision, advising students, and teaching.

Research Scientist
Computer Science Department

Columbia University
New York, NY, USA
Sept. 2008 – Aug. 2010

Advancing recognition for computer vision including: high level describable visual attributes for face identification and general object recognition; efficient learning algorithms for classification and detection.

Consultant

KBVT, LLC
San Diego, CA, USA
Dec. 2008 – Aug. 2010

Consulting on face alignment algorithms.

Research Scientist
Yahoo! Research

Yahoo!
Berkeley, CA, USA
Feb. 2007 – May 2008

Exploring what computer vision can do for commercial search applications, protecting copyrighted content, and improving advertising revenues.

Visiting Scholar
EECS Department

University of California, Berkeley
Berkeley, CA, USA
Feb. 2007 – May 2008

Collaborating with the computer vision group at UC Berkeley and working with groups in Psychology and Environmental Science on applications of computer vision.

Postdoctoral Scholar
EECS Department

University of California, Berkeley
Berkeley, CA, USA
2006–Feb 2007

Attacking the challenge of visual recognition at all levels.

Graduate Research Assistant
EECS Department

University of California, Berkeley
Berkeley, CA, USA
2001–2005

While a graduate student in the EECS department, I was a research assistant working on various problems in visual recognition including: activity recognition, object recognition, feature descriptors, video based motion synthesis, face recognition, etc.

Graduate Student Instructor
EECS Department

University of California, Berkeley
Berkeley, CA, USA
1997–2000

While a graduate student in the EECS department, I was a TA for graduate and undergraduate courses in spline based modeling, computer graphics, algorithms, randomized algorithms, and discrete mathematics.

Intern

Sun Microsystems
Menlo Park, CA
Summer 1998

Implemented hand tracking based user interface using Sun Microsystems optimized multimedia libraries.

Senior Consultant

Booz, Allen and Hamilton
Sunnyvale, CA, USA
1996–1997

Full time employee working on distributed systems for multiple hypothesis tracking and general algorithms related consulting. Continued as a consultant.

Graduate Student Instructor
Mathematics Department

University of California, Berkeley
Berkeley, CA, USA
1995–1996

While a graduate student in Mathematics I was a TA for undergraduate linear algebra and discrete math courses.

Teacher
Montgomery Blair H.S. Magnet
Program

Montgomery County Schools
Silver Spring, MD, USA

1994–1995

During a “year off” following my MA I taught discrete mathematics, computer graphics, and software design, at the Montgomery Blair High School Magnet Program for Math, Science, and Computer Science (my alma mater).

SUPPORT

co-PI (with Peter Belhumeur and Shree Nayar) on a grant from the IARPA-BEST program for biometrics (\$832K).

Recipient of a \$65K equipment grant from the Vice President for Research at Stony Brook University (in addition to my start-up package at Stony Brook).

TEACHING I was a teaching assistant for 10 courses at U.C. Berkeley. These ranged from Mathematics to Computer Science, for undergraduates and graduates, in theory and applications. In addition I spent a school year teaching in a High School Magnet program for Science, Math and Computer Science. I was an invited instructor at the NSF funded 2009 Sino-USA VLPR summer school in Beijing. I have taught a graduate topics course on computer vision, and am currently teaching a graduate introduction to computer vision.

SERVICE Area Chair CVPR 2012.
Co-Organizer of 6+2 week summer workshop on visually descriptive language at JHU-CLSP.
Co-Organizer of the Large Scale Learning for Computer Vision Workshop 2011 (to be held at CVPR 2011).
Co-Organizer of the ImageNet Large Scale Visual Recognition Challenge 2010-
Program committee for CVPR 2006, 2007, 2008, 2009, 2010 & 2011.
Program committee for ECCV 2010.
Program committee for BMVC 2008.
Program committee for ICCV 2009.
Award winning reviewer on the program committee for ICCV 2007.
Program committee for 1st Internet Vision Workshop 2008.
Reviewer for SIGGRAPH, NIPS, JMLR, IJCV, PAMI.
NSF Panel Member CISE-IIS 2008.

PATENTS 2 applications from Yahoo! Research
1 application from Columbia University

PUBLICATIONS *Note for understanding publications in computer vision:* Conferences are the most important publication venue in computer vision. The conferences have acceptance rates under 25%. In addition several of these publications were oral presentations (under 5% acceptance at vision conferences). ICCV has a Citeseer impact factor in the top 5% of *all computer science publications* ranked. Note that VLDB is also in the top 5% of computer science publications.

“Baby Talk: Understanding and Generating Image Descriptions”
G. Kulkarni, V. Premraj, S. Dhar, S. Li, Y. Choi, A.C. Berg, T.L. Berg
IEEE Computer Vision and Pattern Recognition, Colorado Springs 2011. (oral)

“Hierarchical Semantic Indexing for Large Scale Image Retrieval”
J. Deng, A.C. Berg, L. Fei-Fei
IEEE Computer Vision and Pattern Recognition, Colorado Springs 2011.

“Who are you with and where are you going?”
K. Yamaguchi, A.C. Berg, T.L. Berg, and L. Ortiz
IEEE Computer Vision and Pattern Recognition, Colorado Springs 2011.

“Using Digital Photography to Examine Grazing in Montane Meadows”

S. McIlroy, B. Allen-Diaz, A.C. Berg

To appear – Journal of Rangeland Ecology & Management 2011

“Describable Visual Attributes for Face Verification and Image Search”

N. Kumar, A.C. Berg, P.N. Belhumeur, S.K. Nayar

accepted – IEEE Transactions on Pattern Analysis and Machine Intelligence

“What does classifying more than 10,000 image categories tell us?”

J. Deng, A.C. Berg, K. Li, L. Fei-Fei

European Conference on Computer Vision, Crete 2010.

“Automatic Attribute Discovery and Characterization”

T.L. Berg, A.C. Berg, J. Shih

European Conference on Computer Vision, Crete 2010.

“Max-Margin Additive Classifiers for Object Detection”

S.Maji, A.C. Berg

IEEE International Conference on Computer Vision, Kyoto 2009. (oral)

“Attribute and Simile Classifiers for Face Verification”

N. Kumar, A.C. Berg, P.N. Belhumeur, S.K. Nayar

IEEE International Conference on Computer Vision, Kyoto 2009. (oral)

“Finding Iconic Images”

T.L. Berg, A.C. Berg

Second Internet Vision Workshop at the IEEE Conference on Computer Vision and Pattern Recognition, Miami 2009. (oral)

“Efficient Classification Using Intersection Kernel Support Vector Machines”

S. Maji, A.C. Berg, J. Malik

IEEE Computer Vision and Pattern Recognition, Anchorage 2008.

“Names and Faces”

T. L. Berg, A. C. Berg, J. Edwards, M. Maire, R. White, Y. W. Teh, E. Learned-Miller, D. A. Forsyth,

To appear in International Journal of Computer Vision.

“Parsing Images of Architectural Scenes”

A.C. Berg, F. Grabler, J. Malik

IEEE International Conference on Computer Vision, Rio 2007.

“Shape Matching and Object Recognition”

A.C. Berg, J. Malik,

A book chapter in: Toward Category Level Object Recognition, 2006.

“SVM-KNN: Discriminative Nearest Neighbor Classification for Visual Category Recognition”

H. Zhang, A.C. Berg, M. Maire, J. Malik

IEEE Computer Vision and Pattern Recognition, New York 2006. *“Recovering*

Human Body Configurations using Pairwise Constraints Between Parts
X. Ren, A.C. Berg, J. Malik,
IEEE International Conference on Computer Vision, Beijing 2005.

“Shape Matching and Object Recognition using Low Distortion Correspondence”
A.C. Berg, T.L. Berg, J. Malik,
IEEE Computer Vision and Pattern Recognition, San Diego 2005. (oral)

“Who’s in the Picture”
T. L. Berg, A. C. Berg, J. Edwards, D. A. Forsyth
Neural Information Processing Systems, Vancouver 2004

“Faces and Names in the News”
T. L. Berg, A. C. Berg, J. Edwards, M. Maire, R. White, Y. W. Teh, E. Learned-
Miller, D. A. Forsyth
IEEE Computer Vision and Pattern Recognition, Washington, D.C. 2004

“Recognizing Action at a Distance”
A. Efros, A.C. Berg, G.P. Mori, J. Malik,
International Conference on Computer Vision, Nice 2003. (oral)

“Geometric Blur for Template Matching”
A.C. Berg, J. Malik,
IEEE Computer Vision and Pattern Recognition, Kauai 2001.

“Approximating Aggregate Queries about Web Pages via Random Walks”
Z. Bar-Yossef, A.C. Berg, S. Chien, J. Fakcharoenphol, D. Weitz
Very Large Databases, Cairo 2000. (oral)

REFERENCES

Please contact me for references.