

Alexander C. Berg

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EDUCATION

Ph.D. “Shape Matching and Object Recognition.” Computer Science December 2005
University of California, Berkeley
M.A. Mathematics 1994 Johns Hopkins University
B.A. Mathematics 1994 Johns Hopkins University

RESEARCH AND EXPERIENCE

Research Scientist **Columbia University**
Computer Science Department **New York, NY, USA**
Sept. 2008 – present

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.

Research Scientist **Yahoo!**
Yahoo! Research **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 **University of California, Berkeley**
EECS Department **Berkeley, CA, USA**
Feb. 2007 – present

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 **University of California, Berkeley**
EECS Department **Berkeley, CA, USA**
2006–Feb 2007

Attacking the challenge of visual recognition at all levels.

Graduate Research Assistant **University of California, Berkeley**
EECS Department **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 **University of California, Berkeley**
EECS Department **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.

SUPPORT

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

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.

SERVICE

Program committee for CVPR 2006, 2007, 2008, 2009, & 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, JMLR, IJCV, PAMI.
NSF Panel Member CISE-IIS 2008.

PUBLICATIONS

Note: Conferences are the most important publication venue in computer vision. The conferences ICCV, and CVPR both 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.

“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 with IEEE Convference 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

Prof. Jitendra Malik
EECS Department. University of California, Berkeley
(510) 642-9582 malik@cs.berkeley.edu

Prof. David Forsyth
Computer Science Department. University of Illinois, Urbana Champaign
(217) 265-6851 daf@uiuc.edu

Prof. Andrew Zisserman
Robotics Research Group, Oxford University +44 1865 2 83056 az@robots.ox.ac.uk

Prof. Pietro Perona
EE and Computational Neuroscience. Caltech University, Pasadena
(626) 395-2084 perona@caltech.edu