

Steve Bako

CONTACT INFORMATION

410 Ellwood Beach Dr. Apt D
Goleta, CA 93117
(619) 339-0523

stevebako@ucsb.edu
<http://www.ece.ucsb.edu/~sbako/>

EDUCATION

University of California, Santa Barbara
2013 - Present **Ph.D.** Electrical and Computer Engineering (Candidate)
Thesis topic: Using deep learning for variance reduction in Monte Carlo rendering

2011 - 2013 **M.S.** Electrical and Computer Engineering

2011 - 2013 **M.A.** Economics

University of California, Berkeley

2008 - 2011 **B.S.** Electrical Engineering and Computer Science

RESEARCH INTERESTS

Computer Graphics, (Deep) Machine Learning, Computational Photography, Computer Vision

PUBLICATIONS AND PRESS

S. Bako, T. Vogels, B. McWilliams, M. Meyer, J. Novak, A. Harvill, P. Sen, T. DeRose, F. Rousselle, “Kernel-Predicting Convolutional Networks for Denoising Monte Carlo Renderings”, *ACM Transactions on Graphics (SIGGRAPH 2017)*, Vol. 36, No. 4, July 2017.

- *Animation Magazine* “Pixar and the Art of Curbing CG Noise”
- *UCSB Current* “Intelligent Animation”

S. Bako, S. Darabi, E. Shechtman, J. Wang, K. Sunkavalli, P. Sen, “Removing Shadows from Images of Documents”, *Asian Conference on Computer Vision (ACCV 2016)*, November 2016.

N. Khademi Kalantari, **S. Bako**, P. Sen, “A Machine Learning Approach for Filtering Monte Carlo Noise”, *ACM Transactions on Graphics (SIGGRAPH 2015)*, Vol. 34, No. 4, August 2015.

PATENTS

“Using machine learning to filter monte carlo noise from images”, P. Sen, N. Khademi Kalantari, **S. Bako**, May 2 2016, US Patent App. 15/144,613

APPOINTMENTS

University of California, Santa Barbara

2017 - Present **Teaching Assistant, Computer Science Senior Capstone Project (CS189A)**

2012 - 2017 **Graduate Student Researcher**

EXPERIENCE

2016 / 2017 **Research Intern, Pixar Animation Studios**

- Utilized deep learning for denoising Monte Carlo rendered images (SIGGRAPH 2017)

2015 **Computer Science Intern, Adobe Systems Inc.**

- Developed shadow removal technique for documents (ACCV 2016)

2014 - 2016 **Technical Consultant, InnoBright Technologies**

2012 **Technical Instructor, BMA Computer Training Solutions**

2010 - 2011 **Electrical Engineering Intern, Northrop Grumman Corporation**

2009 - 2011 **Undergraduate Student Researcher, University of California, Berkeley**

REVIEWER

SIGGRAPH Asia 2017, High Performance Graphics 2015, Journal of Electronic Imaging

SKILLS

Programming: C/C++
TensorFlow
Matlab

CUDA/cuDNN
Python
Java

Language: English

Hungarian

REFERENCES

Dr. Pradeep Sen

Associate Professor and Thesis Advisor
Electrical and Computer Engineering
University of California, Santa Barbara

Dr. Mark Meyer

Head of Research
Pixar Animation Studios