

ANKAN BANSAL

Department of Electrical and Computer Engineering, University of Maryland

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🌐 [Website](#)

RESEARCH INTERESTS

Multi-modal Learning, Scene Understanding, Adversarial learning, Face detection and recognition

EDUCATION

University of Maryland, College Park, MD, USA *August 2015 - present*

Degree: Ph.D., Electrical and Computer Engineering

Advisor: Rama Chellappa

GPA: 3.7/4.0

Indian Institute of Technology, Kanpur, India *July 2010 - June 2015*

Degree: B.Tech. and M.Tech. (Dual Degree), Electrical Engineering

GPA: M.Tech. - 9.6/10.0, B.Tech. - 8.3/10.0

HONORS AND AWARDS

- Clark School of Engineering Distinguished Graduate Fellowship, University of Maryland, 2015-2016
- MCM Scholarship, IIT Kanpur, 2010-2014
- National Talent Search Examination (NTSE) scholarship by Government of India, 2008-2010
- Science Student Award by State Government of Uttar Pradesh, 2008

PUBLICATIONS

UPSET and ANGRI: Breaking High Performance Image Classifiers

Sayantana Sarkar, Ankan Bansal, Upal Mahbub, Rama Chellappa

Pre-print, [arXiv:1707.01159](https://arxiv.org/abs/1707.01159)

Deep Learning for Understanding Faces

Rajeev Ranjan, Swami Sankaranarayanan, Ankan Bansal, Navaneeth Bodla, Jun-Cheng Chen, Vishal M. Patel, Carlos D. Castillo, Rama Chellappa

IEEE Signal Processing Magazine, 2017 (Accepted)

The Do's and Don'ts for CNN-based Face Verification

Ankan Bansal, Carlos Castillo, Rajeev Ranjan, Rama Chellappa

International Conference on Computer Vision Workshops, 2017, [arXiv:1705.07426](https://arxiv.org/abs/1705.07426)

UMDFaces: An Annotated Face Dataset for Training Deep Networks

Ankan Bansal, Anirudh Nanduri, Carlos Castillo, Rajeev Ranjan, Rama Chellappa

International Joint Conference on Biometrics, 2017, [arXiv:1611.01484](https://arxiv.org/abs/1611.01484)

People Counting in High Density Crowds from Still Images

Ankan Bansal, K. S. Venkatesh

International Journal of Computer and Electrical Engineering, 2015 Vol. 7(5), [arXiv:1507.08445](https://arxiv.org/abs/1507.08445)

INTERNSHIPS

SRI International, Princeton, USA

May 2017 - August 2017

Advisor: Ajay Divakaran

Topic: Zero-shot learning in computer vision

Czech Technical University, Prague, Czech Republic

May 2013 - July 2013

Advisor: Jiří Matas

Topic: Detection and pose estimation of texture-less 3-D objects in images and videos

MASTERS THESIS

Duration: May 2014 - June 2015

Topic: Estimating Number of People in Very High Density Crowds

Supervisor: K. S. Venkatesh

TEACHING EXPERIENCE

I have been a Teaching Assistant for the following courses:

Undergraduate Course: Control Systems Laboratory, IIT Kanpur, Fall 2014

Graduate Course: Convex Optimization, IIT Kanpur, Spring 2015

Responsibilities included conducting discussion sessions, preparing solutions to homework problems, assisting students during laboratory, and grading.

RECENT COURSE PROJECTS

Faster R-CNN based detection of handles of kitchen appliances

Course: Robotics and Perception, **Advisor:** Cornelia Fermüller

Analysis of deep networks by visualizing features

Course: Deep Learning, **Advisor:** David Jacobs

Comparison of supervised and unsupervised deep networks with GANs

Course: Deep Learning, **Advisor:** David Jacobs

OTHER RECENT PROJECTS

Detecting faces in millions of images using YOLO

Advisor: Rama Chellappa

Real-time object and face detection using SSD

Advisor: Rama Chellappa

RELEVANT COURSES

University of Maryland, College Park

Deep Learning, Statistical Pattern Classification, Robotics and Perception, Image Understanding, Random Processes, Estimation and Detection Theory, Information Theory

Indian Institute of Technology, Kanpur

Convex Optimization, Artificial Intelligence Planning, Statistical Signal Processing, Kalman Filtering and Applications

SKILLS

Programming Languages and Libraries: Python, MATLAB, C/C++, Caffe, Tensorflow, Torch

Human Languages: Hindi (native), English, Spanish (beginner), Russian (beginner)

POSITIONS OF RESPONSIBILITY

Coordinator, Quiz Events, Antaragni 2012 (inter-collegiate cultural festival of IIT Kanpur)

Coordinator, Crypto, Techkriti 2012 (inter-collegiate technical festival of IIT Kanpur)

Student Guide and Link Student, Counselling Service, IIT Kanpur, 2011-2012

Mentored 9 first year students and helped them acclimatize to the campus environment.

OTHER INTERESTS

I [read](#). I [quiz](#). I am learning to [write](#). And I am teaching myself to play the violin.