

ANKAN BANSAL

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🌐 [Website](#)

CURRENT RESEARCH INTERESTS

Multi-modal Learning, Scene Understanding, Vision and Language

EDUCATION

University of Maryland, College Park, MD, USA

August 2015 - present

Degree: Ph.D., Electrical and Computer Engineering

Advisor: Rama Chellappa

Indian Institute of Technology, Kanpur, India

July 2010 - June 2015

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

Advisor: K S Venkatesh

PUBLICATIONS

Visual Question Answering on Image Sets

Ankan Bansal, Yuting Zhang, Rama Chellappa

Under Submission

Spatial Priming for Detecting Human-Object Interactions

Ankan Bansal, Sai Saketh Rambhatla, Abhinav Shrivastava, Rama Chellappa

Under Submission

Detecting Human-Object Interactions via Functional Generalization

Ankan Bansal, Sai Saketh Rambhatla, Abhinav Shrivastava, Rama Chellappa

Thirty-Fourth AAAI Conference on Artificial Intelligence, 2020 (Accepted), [arXiv:1904.03181](#)

How are attributes expressed in face DCNNs?

Prithviraj Dhar, Ankan Bansal, Carlos D. Castillo, Joshua Gleason, P. Jonathon Phillips, Rama Chellappa

Pre-print, [arXiv:1910.05657](#)

A Fast and Accurate System for Face Detection, Identification, and Verification

Rajeev Ranjan, Ankan Bansal, Jingxiao Zheng, Hongyu Xu, Joshua Gleason, Boyu Lu, Anirudh Nanduri,

Jun-Cheng Chen, Carlos D. Castillo, Rama Chellappa

IEEE Transactions on Biometrics, Behavior, and Identity Science (T-BIOM), 2019, [arXiv:1809.07586](#)

Zero-Shot Object Detection

Ankan Bansal, Karan Sikka, Gaurav Sharma, Rama Chellappa, Ajay Divakaran

European Conference on Computer Vision (ECCV), 2018, [link](#)

Crystal Loss and Quality Pooling for Unconstrained Face Verification and Recognition

Rajeev Ranjan, Ankan Bansal, Hongyu Xu, Swami Sankaranarayanan, Jun-Cheng Chen, Carlos D Castillo,

Rama Chellappa

Pre-print, [arXiv:1804.01159](#)

Deep Features for Recognizing Disguised Faces in the Wild

Ankan Bansal, Rajeev Ranjan, Carlos D. Castillo, Rama Chellappa

IEEE Conference on Computer Vision and Pattern Recognition (CVPR) Workshops, 2018, [link](#)

Predicting Dynamical Evolution of Human Activities from a Single Image

Suhas Lohit, Ankan Bansal, Nitesh Schroff, Jaishanker Pillai, Pavan Turaga, Rama Chellappa

IEEE Conference on Computer Vision and Pattern Recognition (CVPR) Workshops, 2018, [link](#)

Proximity-Aware Hierarchical Clustering of Unconstrained Faces

Wei-An Lin, Jun-Cheng Chen, Rajeev Ranjan, Ankan Bansal, Swami Sankaranarayanan, Carlos D. Castillo,

Rama Chellappa

Image and Vision Computing (IVC), 2018

UPSET and ANGRI: Breaking High Performance Image Classifiers

Sayantana Sarkar, Ankan Bansal, Upal Mahbub, Rama Chellappa

Pre-print, [arXiv: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, [link](#)

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

Ankan Bansal, Carlos Castillo, Rajeev Ranjan, Rama Chellappa

International Conference on Computer Vision (ICCV) Workshops, 2017, [arXiv: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 (IJCB), 2017, [arXiv: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](#)

INTERNSHIPS

Salesforce Einstein AI, Palo Alto, USA

September 2019 - November 2019

Advisors: Nikhil Naik, Richard Socher

Topic: Grounding Visual Concepts

Amazon AWS AI, Pasadena, USA

May 2019 - August 2019

Advisors: Yuting Zhang, Vijay Mahadevan, Stefano Soatto

Topic: Visual Question Answering

Amazon AWS Deep Learning, Seattle, USA

May 2018 - August 2018

Advisors: Joaquin Zepeda, Avinash Ravichandran, Stefano Soatto

Topic: Semi-supervised learning

SRI International, Princeton, USA

May 2017 - August 2017

Advisor: Ajay Divakaran

Topic: Zero-shot Object Detection

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

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:

Control Systems Laboratory (IIT Kanpur, Fall 2014), Convex Optimization (IIT Kanpur, Spring 2015)

RELEVANT COURSES

University of Maryland, College Park

Computer Vision, 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

SKILLS

Programming Languages and Libraries: Python, PyTorch, Tensorflow, Caffe

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

OTHER INTERESTS

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