

# ANKAN BANSAL

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## CURRENT RESEARCH INTERESTS

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Multi-modal Learning, Scene Understanding, Vision and Language

## EDUCATION

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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., Electrical Engineering

## SELECTED PUBLICATIONS

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**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 [arxiv:2004.04851](https://arxiv.org/abs/2004.04851)

**Removing Shortcuts and Resolving Scale Mismatch for Jigsaw**

*Shlok Mishra, Anshul Shah, Ankan Bansal, Abhishek Sharma, Abhinav Shrivastava, David Jacobs*

Under Preparation

**Rethinking Object Detectors for Human Object Interaction Detection**

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

Under Preparation

**How are attributes expressed in face DCNNs?**

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

IEEE International Conference on Automatic Face & Gesture Recognition (FG), 2020, [arXiv:1910.05657](https://arxiv.org/abs/1910.05657)

**Detecting Human-Object Interactions via Functional Generalization**

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

Thirty-Fourth AAAI Conference on Artificial Intelligence, 2020, [arXiv:1904.03181](https://arxiv.org/abs/1904.03181)

**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](https://arxiv.org/abs/1809.07586)

**Zero-Shot Object Detection**

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

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

**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

## 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

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### Salesforce Einstein AI, Palo Alto, USA

**Advisors:** Nikhil Naik, Richard Socher

*September 2019 - November 2019*

**Topic:** Grounding Visual Concepts

### Amazon AWS AI, Pasadena, USA

**Advisors:** Yuting Zhang, Vijay Mahadevan, Stefano Soatto

*May 2019 - August 2019*

**Topic:** Visual Question Answering

### Amazon AWS Deep Learning, Seattle, USA

**Advisors:** Joaquin Zepeda, Avinash Ravichandran, Stefano Soatto

*May 2018 - August 2018*

**Topic:** Semi-supervised Learning

### SRI International, Princeton, USA

**Advisor:** Ajay Divakaran

*May 2017 - August 2017*

**Topic:** Zero-shot Learning

## MASTERS THESIS

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**Topic:** Estimating Number of People in Very High Density Crowds

**Supervisor:** K. S. Venkatesh

## HONORS AND AWARDS

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- Jacob K. Goldhaber Travel Grant, University of Maryland, 2017
- 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

## RELEVANT COURSES

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Computer Vision, Deep Learning, Robotics and Perception

Statistical Pattern Classification, Random Processes, Estimation & Detection Theory, Information Theory, Convex Optimization, Kalman Filtering

## SKILLS

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

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

## SERVICE

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**Reviewer** for vision conferences (CVPR, ICCV, AAAI, etc.), and journals (IJCV, TIP, T-BIOM, etc.)

**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

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I [read](#). I [write](#). I [quiz](#).