

# Mihir Jain

PhD candidate  
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## Objective

I am looking for a full-time research position in Computer Vision and Machine Learning. My research interest lies in visual recognition and I have worked on the following related problems: action recognition and localization, image retrieval and classification, object detection, content based copy detection and video mining.

## Education

- **University of Rennes 1** **Rennes, France**  
PhD in Computer Science 2011- April 2014 (expected)  
Specialization: Computer Vision  
Dissertation Topic: Enhanced Image and Video Representation for Visual Recognition  
Advisors: Dr. Hervé Jégou, Dr. Patrick Bouthemy and Dr. Patrick Gros
- **International Institute of Information Technology** **Hyderabad, India**  
MS by Research in Computer Science 2007-2010  
CGPA: 9.0/10 (90% equivalence)  
Specialization: Visual Information Processing  
Dissertation Topic: Towards Efficient and Scalable Visual Processing in Images and Videos  
Advisor: Dr. C. V. Jawahar
- **Dhirubhai Ambani Institute of Information and Communication Technology** **Gandhinagar, India**  
Bachelor of Technology in Information and Communication Technology 2003-2007  
CGPA: 2.97/4.0 (79.4% equivalence)

## Research Experience

- **TEXMEX team, INRIA** **Rennes, France**  
*Graduate researcher* *Feb 2011 - till date*  
Advisors: Dr. Hervé Jégou, Dr. Patrick Bouthemy and Dr. Patrick Gros
  - PhD thesis: Worked on improving image and video description methods for image search and action recognition.
- **ISLA, Informatics Institute, University of Amsterdam** **Amsterdam, Netherlands**  
*Visiting researcher* *Jun 2013 - Sep 2013*  
Advisors: Dr. Cees Snoek, Dr. Jan Van Gemert
  - Proposed an approach for action localization as a sequence of bounding boxes. The work is currently under submission. Also worked for TRECVID Multimedia Event Detection (MED), 2013.
- **The LNM Institute of Information Technology** **Jaipur, India**  
*Lecturer, Computer Science* *Jul 2010 - Jan 2011*
  - Instructor of Discrete Mathematics course for second year B.Tech students.
- **Center for Visual Information Technology (CVIT)** **Hyderabad, India**  
*Research assistant* *Jan 2008 - May 2010*  
Advisor: Dr C.V. Jawahar
  - Masters thesis: Worked on computer vision and machine learning algorithms for object localization, video copy detection and video mining.

• **Visual Geometry Group (VGG), University of Oxford**

Visiting research student

Advisor: Dr. Andrew Zisserman

Oxford, UK

Summer of 2008, 2009

- Worked on image classification and object localization with Random Forests for high level feature extraction task of Trecvid 2008 and 2009.

**Publications**

- **Action localization by tubelets from motion** **CVPR'14**  
*Mihir Jain*, Jan van Gemert, Hervé Jégou, Patrick Bouthemy and Cees Snoek. *IEEE Conference on Computer Vision and Pattern Recognition*.
- **MediaMill at TRECVID 2013** **TRECVID'13**  
Cees G. M. Snoek, Koen E. A. van de Sande, Daniel Fontijn, Amirhossein Habibian, *Mihir Jain*, Svetlana Kordumova, Zhenyang Li, Masoud Mazloom, Silvia-Laura Pintea, Ran Tao, Dennis C. Koelma, and Arnold W. M. Smeulder. *TREC Video Retrieval Workshop organized by NIST, Gaithersburg, USA*.
- **Better exploiting motion for better action recognition** **CVPR'13**  
*Mihir Jain*, Hervé Jégou and Patrick Bouthemy. *IEEE Conference on Computer Vision and Pattern Recognition*.
- **Hamming Embedding Similarity-based Image Classification** **ACM ICMR'12**  
*Mihir Jain*, Rachid Benmokhtar, Hervé Jégou and Patrick Gros. *ACM International Conference on Multimedia Retrieval*.
- **Asymmetric Hamming Embedding** **ACM MM'11**  
*Mihir Jain*, Hervé Jégou and Patrick Gros. *ACM Multimedia*.
- **Characteristic Pattern Discovery in Videos** **ICVGIP'10**  
*Mihir Jain* and C. V. Jawahar. *Indian Conference on Computer Vision, Graphics and Image Processing*.
- **Example Based Video Filters** **CIVR'09**  
*Mihir Jain*, Sreekanth Vempati, Chandrika Pulla and C. V. Jawahar. *ACM International Conference on Image and Video Retrieval*.
- **Oxford/IIIT TRECVID 2009 - Notebook paper** **TRECVID'09**  
Sreekanth Vempati, *Mihir Jain*, Omkar Parkhi and C. V. Jawahar  
Andrea Vedaldi, Marcin Marszalek and Andrew Zisserman.  
*TREC Video Retrieval Workshop organized by NIST*.
- **Oxford/IIIT TRECVID 2008 - Notebook paper** **TRECVID'08**  
James Philbin, Manuel Marin-Jimenez, Siddharth Srinivasan and Andrew Zisserman  
*Mihir Jain*, Sreekanth Vempati, Pramod Sankar and C. V. Jawahar  
*TREC Video Retrieval Workshop organized by NIST*.
- **Eye detection and face recognition using line edge map** **NCVPRIPG'08**  
*Mihir Jain*, Suman K. Mitra and Naresh Jotwani. *National Conference on Computer Vision, Pattern Recognition, Image Processing and Graphics*.
- **Eye Detection Using Line Edge Map Template** **VISAPP'08**  
*Mihir Jain*, Suman K. Mitra and Naresh Jotwani. *International Conference on on Computer Vision Theory and Application*.

**Skill-set**

Programming Languages: C, C++, Java

Scripting Languages: MATLAB, Shell, Python

Software and tools: L<sup>A</sup>T<sub>E</sub>X, Opencv, MS Office, OpenOffice, Latex, Adobe Photoshop

Operating Systems: Linux, Windows operating platforms