

Rahul Anand Sharma

About Me:	<p>I'm a recent graduate student (Btech + MS By Research) from International Institute of Information Technology, Hyderabad (IIIT-H) associated with Center for Visual Information Technology and advised by Prof. C.V. Jawahar and Dr. Vineet Gandhi .</p> <p>My primary research interests include Machine Learning, Computer Vision and its applications. My Thesis is based on Automatic Analytics on Broadcast Sports Videos for Soccer and Cricket.</p> <p>After Finishing up my Masters i am currently working at Microsoft Research, India on Project FarmBeats: IoT for agriculture</p>		
Contact Information	Microsoft Research, India, <i>Email(O):</i> a-rahsha@microsoft.com Website: http://rahul-anand.in		Voice : +919703231722 <i>Email(P):</i> rahulanandsharma@gmail.com
Education	<p><i>International Institute of Information Technology</i> , Hyderabad, India BTech + MS by <i>Research</i> in Computer Science, 2012 -2016 GPA : 8.93/10</p>		
Experience	<p><i>Software Design Engineer (Research Fellow)</i> September 2016 - Present Microsoft Research, India</p> <ul style="list-style-type: none">• Working on Project FarmBeats: IoT for agriculture. Our mission is to improve farming through data-driven practices. We are inventing new ways to gather data, to store them in the cloud, and feed them back to the farmers.• Developed an automatic plant classification system using Microsoft Cognitive Toolkit (CNTK) <p><i>Summer Intern</i> May 2015 HackerRank, India</p> <ul style="list-style-type: none">• Improved the Codechecker by adding support for Image Processing related problems.• Ten Fold reduction in Deployment time by improvising the asset pre-compilation pipeline.• Winner of Hackathon organized at HackerRank by Building Static code Analysis tool <p><i>Teaching Assistant</i> IIIT Hyderabad, India</p> <ul style="list-style-type: none">• Artificial Intelligence• Principle of Programming Languages• Digital Image Processing• Digital Signal Analysis and Applications		
Publications	<ul style="list-style-type: none">• Rahul Anand Sharma, Vineet Gandhi & C.V. Jawahar "Automated top view registration of broadcast football videos" Computer Vision and Pattern Recognition (CVPR), 2017 (Under Review)• Rahul Anand Sharma, Visesh Chari, Vineet Gandhi & C.V. Jawahar "Automatic analysis of broadcast football videos" Springer Journal on Signal, Image and Video Processing (JOSIVP), 2016		

- **Rahul Anand Sharma**, Pramod Kompalli & C.V. Jawahar "*Fine-Grain Annotation of Cricket Videos*" Asian Conference on Pattern Recognition (ACPR), 2015
- Himangi Saraogi, **Rahul Anand Sharma** & Vijay Kumar "*Event Recognition in Broadcast Soccer Videos*" Indian Conference on Computer Vision, Graphics and Image Processing (ICVGIP), 2016

Achievements

- Enlisted in Deans list of Academic and Research excellence at IIIT Hyderabad
- Research Work on "Fine-Grain Annotation of Cricket Videos" covered by washingtonpost, Gadgets 360, theregister, thestack and others
- Winner of IIIT-H Hackathon
- Finished in Top Ranks at Various Programming Contests in inter-college level competitions
- Elected member of Academic Council Student affairs committee (AC-SAC)

Interests

Computer Vision, Machine Learning and Artificial Intelligence

Major Projects

- **Fine Grain Annotation of Cricket Videos** : we present a solution that enables rich semantic annotation of Cricket videos at a fine temporal scale. We obtain a high annotation accuracy, as evaluated over a large video collection.
- **Automatic Analysis of Broadcast football videos** : Shown that this problem can be partitioned into three smaller problems, namely, camera viewpoint estimation, event tagging and spatial segmentation. We have shown the spatial semantic segmentation can be improved by as much as 20 %using the context and player detection precision can be improved up to 60%.
- **Automated top view registration of broadcast football videos** : For the Task of Image registration we propose an alternate approach exploiting the edge information and demonstrate its success in a specific scenario of registering football broadcast video frames on the static top view model of the playing surface

References

Contact information available upon request

Ranveer Chandra : Principal Researcher, Microsoft Research, Redmond

Manohar Swaminathan : Senior Researcher, Microsoft Research, India

C.V. Jawahar: Professor, IIIT Hyderabad,India

Vineet Gandhi : Senior Research Scientist, IIIT Hyderabad

Pramod Sankar : Data Scientist, Flipkart Labs, India

Visesh Chari : Research Scientist, Amazon Lab 126, California