

# Gagan Kanojia

Ph.D. Candidate, IIT Gandhinagar

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## CONTACT INFORMATION

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## EDUCATION

### **Indian Institute of Technology Gandhinagar**

May 2015 - Present

*Ph.D. Candidate in Electrical Engineering*

Supervisor: Prof. Shanmuganathan Raman

CPI : 9.39/10

### **Indian Institute of Technology Gandhinagar**

2010-2014

*B.Tech. in Electrical Engineering with Minor in  
Computer Science*

CPI : 7.72/ 10

### **Kendriya Vidyalaya No.4, Gwalior (M.P.)**

2009

High School Certificate (CBSE) 85.4%

### **Khushal Vidya Peeth, Gwalior (M.P.)**

2007

Secondary School Certificate (CBSE) 85%

## RESEARCH INTERESTS

My research interests lie in Computer Vision, Deep Learning and Computational Photography. My Ph.D. thesis is closely related to the tasks which involve moving objects present in videos or images captured from different view-points. I am actively working with deep neural networks for videos and image sequences. I have experience of working with convolutional neural networks, recurrent neural networks, and generative adversarial networks. In my research works, I utilize the information provided by the moving regions present in videos or multi-view image sequences to solve problems like action recognition, dynamic object detection, and image sequencing. I also explore the advantages of using multiple images of a scene over a single image.

## AWARDS

### **Best Paper Runner-up**

December 2019

Awarded for “Exploring Temporal Differences in 3D Convolutional Neural Networks.” at National Conference on Computer Vision, Pattern Recognition, Image Processing and Graphics (NCVPRIPG), 2019

### **TCS Research Scholarship**

July 2016 - Present

### **The Spot Award**

September 2014

Awarded for demonstrating excellence in the assigned tasks at eClerx Services Ltd.

## TECHNICAL SKILLS

Programming Languages: C, Python, MATLAB  
Libraries and Scripts: PyTorch, OpenCV, Numpy  
APIs: OpenMP

## WORK EXPERIENCE

### **eClerx Services Limited**

May 2014 - May 2015

Worked as a Senior Software Engineer

## PUBLICATIONS

**Gagan Kanojia**, and Shanmuganathan Raman. “Learning to Sort Image Sequences via Accumulated Temporal Differences.” [Under review in IEEE International Conference on Computational Photography 2020]

**Gagan Kanojia**, and Shanmuganathan Raman. “Simultaneous Detection and Removal of Dynamic Objects in Multi-view Images.” In Winter Conference on Applications of Computer Vision (WACV), 2020.

**Gagan Kanojia**, and Shanmuganathan Raman. “MIC-GAN: Multi-view assisted Image Completion using Conditional Generative Adversarial Networks.” In Twenty Sixth National Conference on Communications (NCC), 2020.

**Gagan Kanojia**, Sudhakar Kumawat, and Shanmuganathan Raman. “Exploring Temporal Differences in 3D Convolutional Neural Networks.” In National Conference on Computer Vision, Pattern Recognition, Image Processing and Graphics (NCVPRIPG), 2019. (**Best Paper Runner-up Award**)

**Gagan Kanojia**, Sudhakar Kumawat, and Shanmuganathan Raman. “Attentive spatio-temporal representation learning for diving classification.” In IEEE Conference on Computer Vision and Pattern Recognition Workshops (CVPRW), 2019.

**Gagan Kanojia**, and Shanmuganathan Raman. “DeepImSeq: Deep image sequencing for unsynchronized cameras.” In Pattern Recognition Letters 117 (2019): 9-15.

**Gagan Kanojia**, and Shanmuganathan Raman. “Patch-based detection of dynamic objects in CrowdCam images.” In The Visual Computer 35.4 (2019): 521-534.

**Gagan Kanojia**, and Shanmuganathan Raman. “Postcapture focusing using regression forest.” In IEEE Signal Processing Letters 24.6 (2017): 751-755.

**Gagan Kanojia**, Sri Raghu Malireddi, Sai Chowdary Gullapally, and Shanmuganathan Raman. “Who Shot the Picture and When?.” In International Symposium on Visual Computing, pp. 438-447. Springer, Cham, 2014.

**Gagan Kanojia**, and Shanmuganathan Raman. “FacialStereo: Facial depth estimation from a stereo pair.” In Computer Vision Theory and Applications (VISAPP), 2014 International Conference on, vol. 3, pp. 686-691. IEEE, 2014.