

PERSONAL DETAILS	BC 306, IC Building Lausanne, Switzerland 1024 Webpage: <i>krishnakanthnakka.github.io</i>	+41-787-330-059 krishna.nakka@epfl.ch Male, DOB: 25 Oct, 1992
EDUCATION	Ecole Polytechnique Fédérale de Lausanne (EPFL) Pursuing Ph.D. in Computer Science <i>Advisors: Dr. Mathieu Salzmann and Prof. Pascal Fua</i> Topic: My research focuses on developing deep architectures that are interpretable and helpful for adversarial attack detection in the context of visual recognition and semantic segmentation. I also work on detecting anomalies in semantic segmentation networks. Indian Institute of Technology Kharagpur <i>M.Tech with specialization in Signal Processing and Instrumentation,</i> <i>B.Tech (Honours) in Electrical Engineering (5 year Dual Degree)</i>	Sep 2017 - Present Jun 2010 - May 2015 GPA: 8.89/10.0
EXPERIENCE	Samsung R&D Institute , Bangalore <i>Advanced Technology Lab</i> Prototyped a joint reflection-removal and super-resolution of a video sequence. University of Alberta , Edmonton <i>Under: Prof. Nilanjan Ray, Computing Science Department</i> Evaluated large scale image retrieval methods using product quantization of sub-codebooks. University of Queensland , Australia <i>Under: Prof. Jeffrey Harmer, Advanced Imaging Lab</i> Developed an exponentially decaying non-uniform sampling scheme to shorten acquisition time in spectroscopy experiments. Philips Research Asia , Bangalore <i>Under: Dr. Shankar M Venkatesan</i> Implemented a part based human detection model using Adaboost of SVM based weak classifiers.	Sep 2015 - July 2017 May 2014 - July 2014 Nov 2013 - Jan 2014 May 2013 - July 2013
AWARDS	EDIC Fellowship (2017) to pursue doctoral studies at EPFL. Mitacs Globalink Scholarship and University of Queensland Summer Research Scholarship MCM Scholarship for 4 consecutive years for excellent academic performance at IIT KGP	
PUBLICATIONS	<i>Conference</i> 1. One Shot and Efficient Adversarial Attacks for Object Trackers Krishna Kanth Nakka and Mathieu Salzmann, <i>preprint soon</i> 2. Towards Robust Fine-grained Recognition by Maximal Separation of Discriminative Features Krishna Kanth Nakka and Mathieu Salzmann, <i>Asian Conference on Computer Vision (ACCV), 2020.</i> 3. Indirect Local Attacks for Context-aware Semantic Segmentation Networks Krishna Kanth Nakka and Mathieu Salzmann, <i>European Conference on Computer Vision (ECCV), 2020.</i> 4. Detecting the Unexpected via Image Resynthesis Krzysztof Lis, Krishna Kanth Nakka, Pascal Fua, Mathieu Salzmann, <i>International Conference on Computer Vision (ICCV), 2019.</i>	

5. **Interpretable BoW Networks for Adversarial Example Detection**
Krishna Kanth Nakka and Mathieu Salzmann,
Explainable and Interpretable AI workshop, ICCV 2019.
6. **Deep Attentional Structured Representation Learning for Visual Recognition**
Krishna Kanth Nakka and Mathieu Salzmann,
British Media Vision Conference (BMVC), 2018.

Below listed articles are published during my Master's and Internships

7. **Deep learning based fence segmentation and removal from an image using a video sequence**
Jonna S, Nakka KK, Sahay RR,
International Workshop on Video Segmentation, ECCV 2016. Oral.
8. **My camera can see through fences: A deep learning approach for image de-fencing**
Jonna S, Nakka KK, Sahay RR,
Asian Conference on Pattern Recognition ACPR, 2015.
9. **Towards an Automated Image De-fencing Algorithm Using Sparsity**
Jonna S, Nakka KK, Sahay RR,
International Conference on Computer Vision Theory and Applications, VISAPP 2015.
10. **3D-to-2D mapping for user interactive segmentation of human leg muscles from MRI data**
Ray N, Mukherjee S, Nakka KK, Acton ST, Blanker SS,
Signal and Information Processing, GlobalSIP 2014.

Journal

1. **Detection and removal of fence occlusions in an image using a video of the static/dynamic scene**
Jonna S, Nakka KK, Khasare VS, Sahay RR, Kankanhalli MS,
Journal of Optical Society of America (JOSA) A. 2016.
2. **Non-uniform sampling in EPR: optimizing data acquisition for Hyscore spectroscopy**
Nakka KK, YA Tesiram, IM Brereton, M Mobli and JR Harmer,
Physical Chemistry Chemical Physics, 2014.

SKILLS

- Languages: C/C++, Python, MATLAB
- Softwares: PyTorch, Tensorflow, Caffe