

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	<b>Ecole Polytechnique Fédérale de Lausanne (EPFL)</b> Pursuing Ph.D. in Computer Science <i>Advisors: Mathieu Salzmann and Pascal Fua</i>  <b>Topic:</b> My research focuses on developing deep architectures that are interpretable and helpful for adversarial attack detection.  <b>Indian Institute of Technology Kharagpur</b> <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	<b>Samsung R&amp;D Institute, Bangalore</b> <i>Advanced Technology Lab</i> Prototyped a joint reflection-removal and super-resolution of a video sequence.  <b>University of Alberta, Edmonton</b> <i>Under: Prof. Nilanjan Ray</i> Evaluated large scale image retrieval methods using product quantization of sub-codebooks.  <b>University of Queensland, Australia</b> <i>Under: Prof. Jeffrey Harmer, Advanced Imaging Lab</i> Developed an exponentially decaying non-uniform sampling scheme to shorten acquisition time in spectroscopy experiments.  <b>Philips Research Asia, Bangalore</b> <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	<b>EDIC Fellowship (2017)</b> to pursue doctoral studies at EPFL. <b>Mitacs Globalink Scholarship</b> and <b>University of Queensland Summer Research Scholarship</b> <b>MCM Scholarship</b> for 4 consecutive years for excellent academic performance at IIT KGP	
PUBLICATIONS	<i>Conference</i>  1. <b>Indirect Local Attacks for Context-aware Semantic Segmentation Networks</b> Krishna Kanth Nakka and Mathieu Salzmann, <i>arXiv preprint.</i>  2. <b>Detecting the Unexpected via Image Resynthesis</b> Krzysztof Lis, Krishna Kanth Nakka, Pascal Fua, Mathieu Salzmann, <i>International Conference on Computer Vision (ICCV), 2019.</i>  3. <b>Interpretable BoW Networks for Adversarial Example Detection</b> Krishna Kanth Nakka and Mathieu Salzmann, <i>Explainable and Interpretable AI workshop, ICCV 2019.</i>  4. <b>Deep Attentional Structured Representation Learning for Visual Recognition</b> Krishna Kanth Nakka and Mathieu Salzmann, <i>British Media Vision Conference (BMVC), 2018.</i>	

5. **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.*
6. **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.*
7. **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.*
8. **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. [pdf]*
2. **Non-uniform sampling in EPR: optimizing data acquisition for HYSORE 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