# UTKARSH VERMA

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#### **EDUCATION**

Delhi Technological University	2019
B. Tech, Electronics and Communication Engineering	7.88 CGPA
Kendriya Vidyalaya, Allahabad	2014
AISSCE(XIIth)	89.4%
Sanskaar International School, Allahabad	2012
AISSE(Xth)	9.2 CGPA

#### **SKILLS**

Programming Languages	C/C++, Python, MATLAB, SQL
Python Libraries	PyTorch, Tensorflow, Keras, OpenCV, Scikit-Learn, Pandas
Software & Tools	Jupyter Notebooks, Anaconda, Docker, Git, VSCode, Octave

#### **INTERNSHIP**

## CSIR-CEERI, Pilani

Jun - Jul 2018

Research Trainee under Dr. S. A. Akbar, Chief Scientist, CSIR-CEERI

*Implemented* the state-of-the-art deep neural network architecture for Image Super-resolution and Enhancement on a dataset of 800 high-resolution images.

*Identified* the shortcomings in conventional super-resolution techniques which improve the Peak Signal-to-Noise Ratio only and researched for metrics to state a *perceptually super-resolved* image.

#### **PROJECTS**

### Image Style Transfer using CNNs

Jan 2019

Built a neural network architecture to perform Image Style Transfer from a style image to content image. A VGG19 net pretrained on ImageNet dataset and performed transfer learning with style transfer loss.

# Image super-resolution with Perceptual Quality Retention

Aug - Nov 2018

Built a Deep Neural Network with modified loss function and architecture in order to keep the perceptual quality of the image intact along with improving the peak signal to noise ratio (PSNR).

## Computer Vision based Pick-Up Bot

Nov 2016 - Mar 2017

Built a Computer Vision based Automated Robot System was programmed to pick objects that could be differentiated by color and shape and deliver them to their corresponding destination signified by the same shape and color.

# AWARDS & ACCOLADES

1st Runner Up, Smart India Hackathon 2018	Apr 2018
World's Largest Hackathon - 1L+ Participants	2
2 <sup>nd</sup> Runner Up, Fintech Innovation Hackathon	Sep 2017
DCB Bank	
Delhi State Representative, Swachhathon 1.0	Sep 2017
Ministry of Drinking Water and Sanitation, Govt. of India	
Finalist, E-Yantra Robotics Competition	Mar 2017
IIT Bombay	

# RELEVANT MOOCS TAKEN

Convolutional Neural Networks for Visual Recognition (CS231n)	Stanford University
5-course specialisation in Deep Learning	Deeplearning.ai
Intro to Deep Learning with PyTorch	Udacity
Advanced Python for Machine Learning (DSE200x)	UCSanDiego