

# SANGEET KUMAR MISHRA

C-340, Vidyasagar Hall Of Residence, IIT Kharagpur ◊ West Bengal. 721302

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## EDUCATION

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### Indian Institute of Technology Kharagpur

Undergraduate

Department of Civil Engineering

*July 2016 - Present*

Overall GPA: 8.47/10

### Kendriya Vidyalaya No 1, Bhubaneswar

Intermediate in Science

Central Board Of Secondary Education

*July 2014- May 2016*

Percentage: 90.1

### DAV Public School, Sector 4, Bokaro

Matriculation

Central Board Of Secondary Education

*April 2003 - May 2014*

Overall GPA: 10

## TECHNICAL STRENGTHS

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### Programming Languages

C/C++,Python,JavaScript, MATLAB/Octave

### Web Technologies

HTML, CSS

### Libraries

ROS, OpenCV

### Machine Learning

TensorFlow, TFLearn, Scikit Learn, PyTorch

## EXPERIENCE

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### Autonomous Underwater Vehicles ,IIT Kharagpur

*Guided By : Prof. C.S. Kumar*

February 2017 - Present

*Software Team member*

- Implemented CA-CIFAR algorithm to detect buoy and marker underwater
- Implemented HSV Thresholding for buoy detection in OpenCV
- Implementing Mission Planner for Kraken 4.0 on ROS using actionlib and smach
- Implementing Faster-RCNN for real time object detection of buoy

### AgNEXT Technologies,IIT Kharagpur

*Guided By : Prof. Mrigank Sharad*

October 2017 - Present

*Machine Learning and Image Processing Team Member*

- Segmentation of region affected by pests on crops
- Classification of pests to help the farmers take better medicative or preventive steps

## PROJECTS

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### Semantic Segmentation using Adversarial Networks

*Guided By :: Prof. Debdoot Sheet and Miss Rachana Sathish*

September 2017 - Present

*IIT Kharagpur*

- Implementing adversarial training approach to train semantic segmentation models
- Tools used :: PyTorch — Numpy

### Dog Or Cat

<https://github.com/sangeet259/Dog-or-Cat>

Self Project

- A Convolutional Neural Network based application to detect Cats and Dogs
- Implemented a 6 Layered architecture which achieved 92% accuracy
- Tools used :: TFLearn — Tensorflow — NumPy

## K Means Compressor

Course Project

*Machine Learning — Coursera*

<https://github.com/sangeet259/KMeans-Compressor>

- Implemented KMeans Clustering algorithm to find dominant colours in an image
- Achieved a 6 times reduction in size by using only the dominant colours for Image representation
- Tools used :: Octave

## Sign Language Detection

Course Project

*Deep Learning Specialization Coursera*

<https://github.com/sangeet259/Sign-Language-Detector>

- A 3 layer Deep Neural Network based program to detect hand signs from 0 to 5
- Tools used :: Tensorflow — NumPy

## Synisto

Self Project

<https://github.com/sangeet259/synisto>

- A Collaborative Filtering based application to suggest movie to users on MovieLens 1M dataset
- Working on using Restricted Boltzmann Machines for the prediction
- Tools used :: NumPy — SciPy

## ACADEMIC ACHIEVEMENTS

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- Ranked in National Top 1% (amongst 1,300,000 candidates) in JEE Mains 2016 and Top 1.8% (amongst 200,000 candidates) in IIT-JEE Advanced 2016
- Ranked in the State-wise Top 1% in Indian National Chemistry Olympiad

## RELEVANT COURSES

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Course Name	Authority
Programming & Data Structures	IIT Kharagpur
Algorithms Specialization	Stanford University via Coursera
Machine Learning	Stanford University via Coursera
Machine Learning in Medicine	IIT Kharagpur
Deep Learning Specialization	DeepLearning.ai via Coursera
CS231n: CNNs for Visual Recognition(ongoing)	Self Learning

## POSITION OF RESPONSIBILITY

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### Captain - Open Soft :: VS Hall Of Residence

August 2017 - Present

- Promoted the use of version control systems like Git through meetings

## EXTRA-CIRRICULAR

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- Secured Silver in Biz Quiz General Championship 2017 and represented LBS Hall of Residence
- Secured Silver in General Quiz in Impulse 2017