AMITY UNIVERSITY

-----UTTAR PRADESH-----

Amity School of Engineering and Technology

Minor Project

Student Name	**AMLAAN BHOI**
Enrollment No	**A2305213303**
Programme	**B.Tech (CSE)**
Company's Name and Address	**Amity University** **Sector 125, Noida, Uttar Pradesh, India** **201303**

Industry Guide

Name

Designation

Contact Number

Ph.(O) : **(R) :**

Mobile :

Fax :

E-mail :

Project Information

1) Project Duration : **(123 Days)**

a) Date of Summer Internship commencement **(11/07/2016)**

a) Date of Summer Internship Completion **(11/11/2016)**

2) Topic

Object Detection Using Convolutional Neural Networks

3) Project Objective

To classify, propose, and detect objects using Faster-RCNN model based on Caffe in Python.

4) Methodology to be adopted

- Faster R-CNN model in Python built upon the Caffe library - Softmax Regression prior Output Layer - Convolutions, Sub-sampling (pooling), filter

5) **Brief Summery of project(*to be duly certified by the industry guide*)**

The project is based on basic object detection using Machine Learning concepts; specifically, Convolutional Neural Networks. Extraction of features, filtering them, convoluting layers, and pooling (sub-sampling) layers is what enables accurate object detection. The output image is the same as the input image with a boundary box with appropriate objects detected and probability of the object classified. Faster-RCNN was proposed in 2015 by Shaoqing Ren and Kaiming He and Ross Girshick and Jian Sun. The basis is the same as Fast-RCN but with fully convolutional features, boundary box proposal, and boundary box regression being fed into a Fast-RCN network.

Signature (Student)	Signature (Industry Guide)	Signature (Faculty Guide)