Siddhartha Saxena

2nd year Computer Science and Engineering Undergraduate Student

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Education

IIT Kanpur B.Tech. Computer Science and Engineering 9.6/10
Vijayverghiya Bal Vidyalaya,Kota AISSSE (CBSE), 93.8%
Delhi Public School, Rewari AISSE (CBSE), 10/10

Projects

AUV-IITK (Autonomous Underwater Vehicle) Software Subsystems under
Prof. K.S Venkatesh and Prof Sachin Y Shinde
December 2015 - Present | **Code**
Creating a vehicle to complete a set of tasks without any human intervention.
Detection and computing the distance of a Buoy from the bot using OpenCV libraries.
Detection of a gate and its orientation with respect to the bot.
Integrated it with ROS framework to form the backbone of software subsystem.

Introduction to Markov Chain and Hidden Markov Model Course Project under
Prof. Nitin Saxena
August 2016 - Present
Understanding the Markov and Hidden Markov Models and the application of these models on
speech recognition problem from the paper "An introduction to Hidden Markov Models" by Rabiner.
Giving a class presentation introducing this topic and its application.

Machine Leaning Reading Project under Prof. Piyush Rai
June 2016 - July 2016
Stochastic Neighbour Embeddings to summarize the data.[1]
Projecting the data in a hamming space for efficient data storage.[2]
Probabilistic Archetypal analysis to find the latent archetypes in the data.[3][4][5]

Face Recognition and Handwriting Recognition ACA Project
February 2016 - April 2016 | **Code**
Did Handwriting Recognition on MNIST dataset using a feedforward neural network and tried
quadratic, cross entropy and softmax loss function to improve accuracy.
Did Facial Recognition in matlab using Principal Component Analysis on Matlab.
Classified movie reviews dataset part of NLTK corpus as positive or negative using Naive Bayes.

Extra-Curricular Activities

Core Team Member, VOX POPULI Journalism body of IIT Kanpur
Instant reporting on news related to campus e.g. opening of Dominoes
Wrote articles for the Fresher's Print Edition 2016 and Winter Print Edition
Conducted a Survey about the Coaching Institutes of Kota in Campus

Awards and Fellowships

Secured AIR 190 in JEE Advanced 2015 out of 150k students who qualified through JEE Mains
Secured AIR 777 in JEE Mains 2015 out of 1.5 million students
Received KVPY fellowship 2015
Received Merit Certificate in Mathematics for being in top .1% students all over the country in class
XII examinations

Languages and Skills

English and Hindi
OpenCV, C++, LaTeX, Python, Numpy, Matlab, Octave, Microsoft Office, HTML/CSS,

Relevant Courses

* Ongoing

Introduction To Computing	Introduction To Machine Learning Techniques*
Abstract Algebra	Linear Algebra
Complex Numbers	Partial Differential Equations*
Introduction to Psychology	Introduction to Logic*