

# Siddharth Mittal

JUNIOR UNDERGRADUATE · COMPUTER SCIENCE AND ENGINEERING

Indian Institute of Technology (IIT), Kanpur

☎ (+91) 7620910325 | ✉ [sidm@iitk.ac.in](mailto:sidm@iitk.ac.in) | 🏠 [home.iitk.ac.in/sidm/](http://home.iitk.ac.in/sidm/) | 📷 [smittal6](#)

## Education

### Indian Institute of Technology Kanpur

BACHELOR OF TECHNOLOGY, COMPUTER SCIENCE AND ENGINEERING

- Cumulative Grade Point Average: **9.4/10.0**

Kanpur, India

2015-2019 (Expected)

## Honors & Awards

2017	<b>Academic Excellence Award</b> , For exceptional academic performance for year 2015-16	IIT Kanpur
2015	<b>All India Rank 1510</b> , Joint Entrance Examination Mains, 1.5 million candidates	India
2015	<b>All India Rank 1988</b> , Joint Entrance Examination Advanced, 150,000 candidates	India
2015	<b>All India Rank 857</b> , Kishore Vaigyanik Protsahan Yojana	India
2015	<b>Selected for INSPIRE</b> , Department of Science and Technology	India

## Experience

### Indian Institute of Science

LEAP LAB, PROF. SRIRAM GANAPATHY [github.com/smittal6/leap-scd/](https://github.com/smittal6/leap-scd/)

- The goal was to develop a speaker independent, real time speaker change detection system
- Synthetic data set was created from TIMIT corpus
- Different models were proposed which used combinations of features and classifiers
- Experiments were carried out and reasonable accuracy was achieved on test set

Bengaluru, India

May-July 2017

### IISER Pune

PROJECT UNDER PROF. SOUMEN MAITY [github.com/smittal6/greedy-covering](https://github.com/smittal6/greedy-covering)

- Studied 'covering arrays' and their use in software testing.
- Implemented density based greedy algorithm for generating covering arrays, in Octave.

Pune, India

December 2016

## Projects

### Generating "Chibi" Animè Images from Normal Animè Images

COURSE PROJECT, MACHINE LEARNING (ONGOING), PROF. PURUSHOTTAM KAR

- Crawled dataset for anime character images, pre-processed them
- Working on generative and style transfer models, to transform the normal image to produce "Chibi" image

IIT Kanpur

August 17 - Present

### Real Time Robust Anomaly Detection

UNDERGRADUATE PROJECT (ONGOING), PROF. MEDHA ATRE

- Working on a model to detect anomaly based on feed from several surveillance cameras

IIT Kanpur

August 17 - Present

### NachOS

COURSE PROJECT, OPERATING SYSTEMS (ONGOING), PROF. MAINAK CHAUDHARY

- Implemented syscalls for Fork, Exit, Exec, Sleep
- Implemented standard Unix process scheduling algorithms

IIT Kanpur

August 17 - Present

### Assorted Machine Learning

SELF

- Created a neural network from scratch
- Implemented sentiment analysis on the Movie Review Imdb database, using the bag of words model
- Coded Generative Adversarial Network (GAN) in Tensorflow

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## Extracurricular Activity

### Counselling Service

STUDENT GUIDE

- Personally helped 5 freshers adjust to the rigours of college life
- Assisted in conducting Orientation for more than 800 incoming students

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July '16 - Apr '17

### Programming Club

SECRETARY

- Assisted in organizing Freshers' Programming Contest in August '16
- Responsible for dissemination of information regarding summer projects offered by Programming Club

IIT Kanpur

Apr '16 - Apr '17

## Skills

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**Programming** C/C++, Java, Python, Keras, Tensorflow  
**Web** HTML, CSS (Bootstrap)  
**Utilities** Git, Vim, Shell Scripting, Docker, R, Matlab/Octave,  $\LaTeX$

## Relevant Courses

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Introduction to Programming	Tools for Computing	Linear Algebra & ODE
Abstract Algebra	Discrete Mathematics	Logic for CS
Data Structures and Algorithms	Computer Organization	Theory of Computation*
Probability and Statistics (A*)	Operating Systems*	Intro to Machine Learning*

*\*: Course in progress, A\*: For outstanding performance*