# Sagnik Gupta

Student, IIIT Hyderabad


September 25, 1996

Kolkata, India

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## SKILLS

- Programming Languages
  - C++, C, Java, Python
- Web Technologies
  - HTML, CSS, Javascript

## COURSE WORK

- Advanced Problem Solving
- Data Structures and Algorithms
- Operating System
- Machine Learning
- Information Retrieval and Extraction

## CERTIFICATIONS -

- NPTEL certification : "Introduction to Modern Application Development", IIT Madras.
- NPTEL certification course : "Programming, Data Structures and Algorithms using Python", IIT Madras.
- NPTEL certification course : "Design and Analysis of Algorithms", IIT Madras.

## POSITIONS OF RESPONSIBILITY -

- Student Placement Coordinator, IIIT Hyderabad
- Member of the Computer Society of India, Kolkata Chapter

## CODING PROFILES

- codechef.com/users/sagnikg
- leetcode.com/sagnik07/

## Work Experience

May, 2020 - July, 2020 — **Research Intern, Samsung R&D Institute Bangalore**

**Project:** Video Instance Segmentation

Worked under the Visual Intelligence R&D team to build a deep learning model to detect, segment and track object instances in a video sequence.

**Technology Used:** PyTorch, Cuda, Docker

## Education

2019 - present — **M.Tech - Computer Science and Engineering**
IIIT Hyderabad — CGPA: 9.21

2015 - 2019 — **B.Tech - Computer Science and Engineering**
Institute of Engineering and Management, Kolkata — CGPA: 9.06

April, 2015 — **ISC - Standard XII**
Modern English Academy, Barrackpore — Percentage: 95.50%

April, 2013 — **ICSE - Standard X**
Modern English Academy, Barrackpore — Percentage: 96.00%

## Projects

August, 2020 — **Wikipedia Search Engine**
*Technology used : Python3*

Designed a complete search engine, on top of 42 GB Wikipedia corpus, with subsecond latency for searches.

It provides additional support for field queries, with normal queries.

May, 2020 — **CraftML**
*Technology used : Python3, Cuda*

Implemented extreme multi label learning (XML) using a random forest based algorithm.

The parallelized implementation uses a K-Means clustering based partitioning approach to improve performance.

December, 2019 — **Single Image Haze Removal**
*Technology used : Python3*

Implemented haze removal using only the single source image.

It uses the Dark Channel prior as a basis for estimating the thickness of the haze and removes it using the thickness map.

October, 2019 — **Peer-to-Peer Group File Sharing System**
*Technology used : C++*

Developed a group based file sharing system, where users can download and upload files at the same time in a peer to peer network.

It provides support of multithreading and additional fault tolerance features by maintaining two trackers instead of one.

November, 2019 — **Inode based File System**
*Technology used : C++*

Implemented a inode based file system on top of a virtual disk, designing our own methods for the basic file system operations.

The GUI feature eases navigation through the file system and view the present contents in it.

## Achievements

Present — **Codechef :** Codechef rating of 1693 with 3 stars.

May, 2019 — **Project :** Certificate for best final year project-2019 entitled "A Multi-Level Polygonal Approximation Based Shape Encoding Framework for Automated Shape Retrieval"

April, 2019 — **Gate, 2019 :** Secured 98.54 percentile in Gate CSE, 2019.

April, 2013 — **ICSE, 2013 :** Secured top 1 percentile score all over India.