Sumanyu Ghoshal
Computer Science & Engineering
Indian Institute of Technology Bombay

180070060
UG Second Year
Male
DOB: 14/02/2000

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2020	9.41

Academic Achievements

2019 **Institute Academic Prize**, Indian Institute of Technology Bombay *Mumbai*
2019 **Change of Branch to Computer Science and Engineering**, Indian Institute of Technology Bombay *Mumbai*
2018 **All India Rank 160**, JEE Advanced (out of 160,000+ candidates) *IIT Kanpur*
2018 **Scholarship for Higher Education (Recommended)**, INSPIRE Scheme *Gov. of India*
2013 **Top 10 %ile among TIPsters**, Duke Talent Identification Program, Duke University *Durham, NC, USA*

Projects

Face Recognition and Autonomous Mapper Robot
IIT Bombay

Institute Technical Summer Project - 2019 *Summer 2019*

- Designed a robot using raspberry pi 3b+ with a facial recognition module implementing the LBPH algorithm using OpenCV
- Implemented mapping of regions and finding out the point-to-point shortest path using HC-SR04 sensors, and the Wavefront algorithm

Automation of Splitting of expenses
IIT Bombay

Prof. Amitabha Sanyal | Course Project *Autumn 2019*

- Developed a django web app to automate the addition and splitting of bills amongst various stakeholders
- Designed an SQL-based database schema in order to efficiently implement a feature to settle-up expenses similar to the Splitwise app
- Provided dedicated insights on the kinds of expenditure made by each user using javascript and highcharts

Teaching Assistants' Selection Portal
IIT Bombay

Undergraduate Academic Council *June 2019 - January 2020*

- Full-stack developer on the core team of UGAC to create a portal for professors to select and evaluate the teaching assistants
- Part of the original core team which interacted with various professors to understand the requirements of theirs on the website

Dead-end Roads
IIT Bombay

Prof. Ajit Diwan | Course Project *November 2019*

- Designed an algorithm to determine the roads which always lead to a dead end by simply comparing the out-degree of each node
- Developed a code in c++ to figure out the longest dead end in the graph with O(n+m) time complexity using the algorithm designed

Image Representation using Principal Component Analysis
IIT Bombay

Prof. Suyash Awate | Course Project *October 2019*

- Obtained the closed representation of an image using the principal component analysis on the image by taking the first 4 components
- Observed the error in this reconstruction from the original image using the Frobenius norm

Internship

Worxogo Solutions Pvt. Ltd
Mumbai

Software Development Intern *July - September 2019*

- Developed a program to automate the nudges sent to the senior management of clients on python
- Implemented OpenPyXl library to import data and export information to excel sheets
- Created a Graphical User Interface (GUI) for the program using the Tkinter library

Positions of Responsibility

Student Alumni Relations Cell
IIT Bombay

Team Member, Alumni Student Mentorship Program *April 2019 - Present*

- Working on a team of 7 to co-ordinate with a pool of above 300 alumni as mentors and 500+ students to be mentored
- Implementing events like Breaking the Ice and Shadow Program to develop stronger student-alumni relations

Technical Skills

Programming and Software Development C++, C, Python, Java, Bash, Git
Web Development HTML, CSS, JavaScript, Django, SQL
Data Science and Computer Vision Matlab, Octave, Numpy, Scipy, Matplotlib, OpenCV(Basics)