

# ASHISH MUKHERJEE

Maharashtra Institute of Technology

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<https://github.com/funnybutnotsofunny>

## EXPERIENCE

Research Intern - RODELLA TECHNOLOGIES  
PVT. LIMITED

**3D Terrain Mapping for Smart Localisation of  
Heterogeneous Swarmed UAV's**

May 2021 - November 2021

- Innovated in Smart Algorithms Division.
- Studied GIS(Geographic Information System) to integrate, heat, height and terrain map.
- Modified Q-Ground Control, using QML and C++ to debug and update GUI of ground control station for heterogeneous swarming application.
- Analyzed 5 triangulation techniques for target identification from aerial footage and decreased the time complexity from  $O(n^2)$  to  $O(n)$ .

Front-End Developer

**MIT ADT UNIVERSITY**

April 2021 - September 2021

- Made various forms for registration, login, sign up etc. using HTML, CSS and Bootstrap.
- Increased efficiency by 40% by implementing new development strategy.

Jr System Developer

**SoftTech Data Securities**

April 2019 - July 2019

- Operated in Department of algorithms (AI, ML, NN) to research optimised methods for identifying morphed or fabricated images and audio.
- Formulated algorithms for Face detection, wrote module for video frame extraction, face detection and recognition.

## TECHNICAL SKILLS

- **Programming Languages:** C/C++, Java, HTML, CSS, Java Script
- **Software Packages:** Visual Studio
- **Operating Systems:** Ubuntu, MS-Windows

## PERSONAL SKILLS

- Administered the cultural team in SAR organisation.
- Led the music team in college.
- Prevailed in 2 rounds of ADT talks.

## EDUCATION

BTECH (CSE) - 8.3 CGPA

**Maharashtra Institute of Technology**

2019 - Currently

Higher Secondary - 82%

**Central Board of Secondary Education**

2017 - 2018

Secondary - 9.6 CGPA

**Central Board of Secondary Education**

2015-2016

## PROJECTS

**ADS Encryption System**

- Built an encryption algorithm from scratch using different Data structures and algorithms integrating the concepts of DSA and cryptography.

**FILLET (Cinema 4D)**

- Incorporated Polygon mesh processing (Voronoi, Delaunay, Hexagon, Triangular Topologies) and explored Graph Simulation Neural Networks for Fluid simulation.
- Implemented 2 tools: fillet and subdivision edit tool for generic polygon Wire frame modelling.

**HANDY CP**

- Created an open-source repository in GitHub containing about 200 questions.
- Explored topics including DP, backtracking, graphs, trees and other topics which are important for programming.

**QUAINT**

- Built an app: Quaint is an android app that aims at giving a platform to Indian businessman a platform to legitimately sell vintage, collectible, antique, collectible and period pieces.
- Developed options to get a certification of authenticity and an algorithm that works to find the approximate cost of the object based on 5 factors. Option to keep an auction of a product.