

# AMOL SAMOTA

## ACADEMIC PROFILE

Degree/Certificate	Institution	Percentage/CGPA	Year
B-Tech	Mining Engineering IIT (BHU), Varanasi	7.66	2022
CBSE (XII)	MDS Public School , Udaipur	88.00	2018
CBSE (X)	Maharana Mewar Public School , Udaipur	95.00	2016

## SKILLS

**LANGUAGES** : C/C++, HTML, CSS, JavaScript

**TECHNOLOGIES**: Data Structures, Algorithms, OOPs, DBMS, SQL, Computer Networks, Operating Systems

**AREA OF INTERESTS**: Competitive Programming, Game Development, Web Development

**EXPOSURE**: React, Node.js

**RELEVANT PROFILES** : [Codeforces](#) , [Github](#) , [LinkedIn](#) , [Portfolio](#)

## PROJECTS

### Real-time Terrain Rendering using Data Structures & Algorithms

*Completed under the guidance of Prof. Rajeve Srivastav, (HOD) Department of CSE, IIT(BHU).*

- **Languages**: C++ | **Graphic Libraries**: OpenGL , GLUT and SFML(Simple Fast Multimedia Library)
- Implemented two rendering methods - **Delaunay Triangulation** and **Real-time Optimally Adapting Meshes (ROAM)** algorithm and suggested optimizations in their Implementation.
- Terrain is processed on the basis of the required level of detail, handling large datasets (here, coordinates in space) and plotting image data on basis of these coordinates.
- The Terrain rendered using the ROAM algorithm was similar to terrain generated in 3D video games.

### Evaluating the performance of Mining Dumpers

- Explored on the application of **classification** and **clustering** algorithms for comparing the performance of **mining dumpers**.
- Dumpers were classified into groups using **K-means Clustering** and presented using **Support Vector Machine(SVM)**. Future failures were predicted using SVM.
- Created a clustering algorithm model on real data which can be used to categorize the new dumpers.

### Clone of GitHub Issue page

- Created clone of GitHub Issue page using Node.js, Express, React. [Link](#).
- User can create as well as delete an issue. Also, the user can decide whether to keep it open or close.

### InstaBase (A gallery web-app)

- Created a web app where users can upload his/her images and later view/edit them. [Link](#).
- Used HTML, CSS, JavaScript, and React for the frontend. The backend was build using Firebase.

### My Portfolio

- Created my portfolio using HTML, CSS, JavaScript, React, styled-components and Bootstrap. [Link](#)
- Added code on GitHub and uploaded it on netlify.

## POSITION OF RESPONSIBILITY

### Literary Secretary , Department of Mining Engineering

Sep'19 - Apr'20

- Organized and coordinated various literary activities in the department throughout the year.
- Coordinated with faculties of Banaras Hindu University (BHU) on different occasions to organize debates & literary activities on social issues.

### Marketing Executive

Jan'20 - Mar'20

*MINFEST - Annual fest of department of mining engineering , IIT(BHU) , Varanasi*

- Responsible for bringing in major sponsors for the MINFEST'20 , received special mentions from the convener and marketing head of fest.

## HONOURS AND ACHIEVEMENTS

- Cleared National Talent Search Examination (NTSE) Stage - 2 and was awarded scholarship.
- Secured International Rank 4 in International Olimpiad of Science in 2015
- Secured International Rank 3 in NCO and International Rank 10 in NSO conducted by Science Olimpiad Foundation in 2015.

## EXTRA-CURRICULAR ACTIVITIES

- Panel Member of Outreach Club of IIT(BHU).
- Member of Chess Club of IIT(BHU).

**T:** 9461921011 **E:** samota.amol.21apr@gmail.com **Address:** 10 , Dhabai Ji Ki bari, Ashok Nagar, Udaipur, 313001, Rajasthan