

ACADEMIC DETAILS				
Degree	Specialization	Institute	Year	CPI/%
B.Tech.	Computer Science and Engineering	IIT Gandhinagar	2023-Present	8.85
Class XII	Physics, Chemistry, Maths	Gyanmanjari Vidhyapeeth	2022-2023	86%
Class X		Gyanmanjari Vidhyapeeth	2020-2021	90.5 %

- PROJECTS
- Predicting Molecular Properties Using Janus**  
(Prof. Anirban Mondal, IIT Gandhinagar)
    - Utilized the JANUS library to predict molecules with desired properties.
    - Focused on optimizing the time-consuming fitness function for S1-T1 gap and oscillator strength.
    - Integrated a Transformer model to predict fitness values, significantly reducing computational time.
  - Machine Learning Projects**
    - Human Activity Recognition:** Implemented a custom decision tree to classify activities such as sitting and walking based on accelerometer data along X, Y, and Z axes.
    - Image Reconstruction:** Used MLPs for image reconstruction, exploring enhancements with random Fourier features and polynomial features. Incorporated image compression and scaling techniques using MLPs.
    - Next Word Predictor:** Extended the concept of next-character prediction using MLPs to build a next-word predictor on the *War and Peace* text dataset.
    - Object Detection and KNN Implementation:** Classified images using the VGG model with varying block sizes and linear MLPs. Implemented both naive and approximate KNN methods, including LSH and KD-Trees, from scratch.
  - Collaborative Code Editor**
    - Clone of Google Docs but with a code editor.
    - Enabled simultaneous editing using web-sockets.
    - Implemented using MERN stack.
  - Miscellaneous**
    - Google Drive Clone, Spotify Clone (Only Styling), WanderLust - Airbnb clone using MERN, SketchBook - MS Paint Clone using React.
    - Simple HTTP server in C, Data Structures and Algorithms implementation in C/C++.
    - Solved 200+ questions in leetcode.
    - Implemented 2048 game, Sudoku Solver, Game of Trust in C.

- TECHNICAL SKILLS
- Programming Languages:** C++, C, Python, JavaScript
  - Tools:** Git, GitHub, React.js, Express, Node.js, MongoDB, SQL,  $\LaTeX$ ,
  - Libraries:** Pytorch, Sklearn, Numpy, Pandas, OpenCV, ...

- EXTRA-CURRICULAR ACTIVITIES
- Passionate about solving puzzles in different formats.
  - Love to play chess.
  - Sprinting and Jogging.
  - Love to play badminton duels and cricket.
  - Passionate about HTBs and CTFs. Exploring Arch Linux.
  - Implementing random stuff using Programming Languages.
  - Passionate for open source contributions.

- POSITIONS OF RESPONSIBILITY
- Technical Officer, Election Commission, IITGN** [Dec '23 - present]  
**Responsibilities:**
    - Maintain and update the collection of websites in collaboration with the team.
    - Develop automation tools using Python.
    - Conducting elections seamlessly.