

| ACADEMIC DETAILS | | | | |
|------------------|----------------------------------|-------------------------|--------------|-------|
| Degree | Specialization | Institute | Year | CPI/% |
| B.Tech. | Computer Science and Engineering | IIT Gandhinagar | 2022-Present | 8.33 |
| Class XII | Physics, Chemistry, Maths | Narayana Junior College | 2021-2022 | 98.7 |
| Class X | | JNV Rangareddy | 2019-2020 | 96.2 |

- PROJECTS
- Two Cars Game implementation on Basys3

[Feb '24 - April '24]

(Prof. Joycee Mekie, IIT Gandhinagar) | [Project Link](#)

Gameplay Engineering: Developed "Two Cars" game mechanics on the Basys3 board using Verilog, ensuring real-time car movement, precise collision detection, smooth controls, and accurate score tracking seamlessly.

Created a custom VGA controller for efficient graphics rendering on a monitor, achieving smooth and clear visuals.

Two Cars Game implementation on Nexys4

[June '24 - Present]

(Prof. Joycee Mekie, IIT Gandhinagar) | [Project Link](#)

Integrated start and end screens with intricate sprite graphics, achieving original game visuals for "Two Cars".

Enhanced visual fidelity with high-quality, animated sprite graphics for cars, obstacles, and various objects.

Designed innovative features for increased user engagement and utilized Verilog for seamless VGA output.

Strategic Games

[Aug '23 - Nov '23]

(Prof. Balagopal Komarath, IIT Gandhinagar) | [Project Link](#)

Technical Proficiency: Demonstrated strong skills in algorithm optimization using BFS and DFS, significantly enhancing game functionality and performance across Sim, Connect, Rubik's Cube solver, and Upitup projects.

User-Centric Design: Formulated engaging game applications with a focus on command-line interface programming and user interaction, ensuring immersive gameplay and optimal performance.

Personal Portfolio Website

[May '24 - July '24]

[Project Link](#) | [Live Link](#)

Constructed and launched a fully responsive personal portfolio website using HTML, CSS, and JavaScript, featuring a modern design, an intuitive navigation experience, and interactive elements that enhance user engagement.

Incorporated a range of interactive features, including a dynamic navigation menu and tabbed content sections for skills, experience, and education, enhancing the site's usability, accessibility, and visual appeal.

Child-Monitoring Smart Bicycle App

[Aug '23 - Sep '23]

(Prof. Nithin George, IIT Gandhinagar)

Crafted an Android app utilizing GPS, accelerometer, and gyroscope sensors to provide real-time, monitoring of cycling dynamics, including over-speeding, fall detection, boundary breaches, and enhanced safety alerts.

Established alert systems for boundary and speed violations, integrating on-device alarms with a framework that updates a secondary phone with location data and alerts for quick emergency response and intervention.

Adaptation and Analysis of SEQIR Model for COVID-19

[Aug '23 - Oct '23]

(Prof. Akshaa Vatwani, IIT Gandhinagar)

Adapted the SEQIR model for COVID-19 by incorporating new parameters and conducting extensive simulations to evaluate its effectiveness, optimizing model accuracy and robustness in predicting epidemic trends.

Performed sensitivity analysis and explored various model adaptations to derive actionable insights, significantly enhancing public health strategies, policy development, and response effectiveness to evolving epidemic scenarios.
- TECHNICAL SKILLS

Programming Languages: Python, Verilog, C, HTML, CSS, JavaScript

Tools: Vivado, Github, Matlab, Simulink, Autodesk Inventor

Libraries: Numpy, Matplotlib, Pandas, sklearn, Seaborn, Scipy, Tensorflow, PyTorch
- ACHIEVEMENTS

Awarded Best Project for "Two Cars" Game Implementation on Basys3, surpassing 13 competitors.

Achieved 1st position in the Volleyball Association of Gandhinagar District Championship 2023-24.

Selected in the Dean's list of Semester-1 for exhibiting exemplary academic performance.
- EXTRA-CURRICULAR ACTIVITIES

Volleyball player

Competed for IIT Gandhinagar at the Inter-IIT Sports Meet 2023, hosted by IIT Bombay.

Contributed significantly to team performance and represented IIT Gandhinagar in intercollegiate tournaments.

Badminton Enthusiast

Actively engage in badminton, demonstrating commitment to physical fitness and strategic play.