



**Raj Sarmanbhai Odedra**  
**Artificial Intelligence and Data Science**  
**Government Engineering College,**  
**Rajkot**

**D2DAIDS003**  
**B.Tech.**  
Gender: Male  
DOB: 28-04-2007

Examination	University	Institute	Year	CPI/A
Graduation	GTU	GEC, Rajkot	Ongoing	9.28
Diploma	GTU	Government Polytechnic, Abad	2025	9.10
Matriculation	GSEB	Bhavna School Ahmedabad	2022	9

Pursuing **Honora** in Computer Science and Engineering and **Minor** in Machine Intelligence and Data Science

## SOHOLASTIC ACHIEVEMENTS

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- Achieved **3rd Rank** in the *India-Israel International Hackathon* with team-based problem solving out of 70 teams.  
{2025}
- Secured **All India Rank 1116 out of 19,000 candidates** (~Top 6%) in **DDCET Examination**.  
{2025}
- Secured **2nd Rank out of 200 participants** in a Hackathon on *Data Structures & Algorithms* at *LD College of Engineering*  
{2023}
- Recognized for **Outstanding Academic Performance** in subjects *4230706 (Data Structures)* and *4230707 (Operating Systems)*  
{2023}
- Top 10 Out of 650 Teams in IIT Delhi in Square-Hacks Hackathon**  
{2025}

## INTERNSHIP AND RESEARCH PROJECTS

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### Protocol-Aware Real-Time Communication in Flutter Applications

Research Internship, Infolabz / Summer Undergraduate Research Program

July -Sep 2024

- Investigated the limitations of conventional WebSocket-based chat systems in **cross-platform mobile environments**, particularly regarding message latency and synchronization.
- Proposed a **lightweight protocol layer** integrated into Flutter's networking stack, leveraging custom backend plugins to bridge native socket-level communication with Flutter UI components.
- Explored the application of **Conflict-Free Replicated Data Types (CRDTs)** to ensure eventual consistency in distributed multi-user messaging scenarios.
- Benchmarked the proposed protocol against baseline WebSocket implementations, demonstrating **up to 20% reduction in latency** and improved consistency under high-concurrency simulations.

### Scalable Microservice-Oriented APIs with Django

Research Internship, BrainyBeams Technologies

Aug-Sep 2023

- Studied challenges in **scaling monolithic Django backends** for multi-user web applications, with focus on query optimization and asynchronous workflows.
- Designed and implemented a **microservice-inspired architecture** using Django REST Framework, decomposing services into modular API endpoints for improved maintainability.
- Integrated **asynchronous task processing (Celery + Redis)** to offload computationally expensive operations (notifications, analytics), achieving a **3x throughput improvement** in stress tests
- Conducted performance evaluation on relational datasets, demonstrating **~35% query response improvement** through indexing and caching strategies.

## TECHNICAL SKILLS

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**Programming Languages Development**  
**Data Science**

Proficient in: C++, Python | Familiar with: Java, MATLAB, Flask, Nodejs, Flutter, Expressjs, Angular, Flutter, CSS, Django, Keras, TensorFlow, PyTorch, Matplotlib, NumPy, SciPy, Pandas