

# Tanmaysinh Gharia

Bachelor of Technology  
Computer Science & Engineering

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🐙 GitHub Profile

🌐 LinkedIn Profile

## EXPERIENCE

### •Research and Development Intern

July, 2024 - Ongoing

IAF- Indian Air Force

- Aim: Aakash Missile Simulator (A complete Implementation). Also create Web portal to manage studies of Trainee officials Providing Role-based Access Control with great security.
- Integrate diverse sensor arrays and develop data processing algorithms to synchronize real-time data, enabling accurate simulation of missile dynamics and system behaviors.
- Technologies Using: Python, JSON, Arduino IDE, Technologies are to be explored, etc ..

### •Software Developer Engineer Intern

May, 2024 - July, 2024

IAF- Indian Air Force

- Aim: Aakash Missile Simulator (Base Model).
- Architected a Streamlit framework for real-time rendering and visualization of JSON datasets, supporting dynamic updates through an interactive GUI.
- Large-scale data handling with minimal configuration changes and instant data updates.
- Technologies Used: Python, JSON, Arduino IDE.

## EDUCATION

### •Bachelor of Technology in Computer Science and Engineering

June, 2021- May, 2025

Institute of Technology, Nirma University

CGPA: 7.85

## PERSONAL PROJECTS

### •End-to-End E-Commerce Portal- SMART SELECTS ↗

A PHP-based e-commerce platform.

- Implemented **Role-Based Access Control**: Admin, Vendor, Customer, Shipping Manager, and Delivery Agent.
- Configured database using **PhpMyAdmin**, applied **3rd Normal Form (3NF)** to minimize redundancies. Handled large CSV files using **asynchronous JavaScript functions** for efficient data processing.
- Ensured secure password storage and authentication with **MD5 hashing** to protect user privacy. Applied client & server side authentication to **prevent SQL injection attacks**. Provided **Captcha Protection** through image generation with the **GD library** in PHP.
- Technologies Used: PHP, MySQL, HTML, CSS, JavaScript.

### •Angry Bird Game ↗

A physics-based puzzle game with interactive multilevel gameplay

- Implemented **accurate score calculation** based on the destruction of structures and the number of birds remaining.
- Integrated **cheat keys** including options for zero gravity, normal gravity, and back wall toggling.
- Configured game controls for a smooth user experience, including **pause**, **resume**, and **quit** functions.
- Technologies Used: Python, Pygame, Pymunk.

### •Excel & Power Point Automation ↗

A Python-based Automation Tool

- Developed a Python script using **openpyxl** and **googletrans**, automating the processing and derivation of fields for 10,000+ data rows. It automatically generates up to 5,000+ slides from processed data in seconds.
- Reduced manual work by **40 hours/month** and enhanced data presentation quality by **20%**.
- Technologies Used: Python, Openpyxl, Googletrans, pptx

## TECHNICAL SKILLS

**Languages:** Python, PHP, Javascript, JAVA, C  
**Web Technologies :** HTML, CSS, Bootstrap, ReactJS  
**Dev Tools:** Git, Github

**Runtime Environment:** NodeJS  
**Databases:** MongoDB, mySQL (Relational Database)

## ACHIEVEMENTS & CERTIFICATIONS

**Software Engineer Intern** - By HACKERRANK | 2024 ↗

**Python Developer** - By HACKERRANK | 2024 ↗

**Version Controll with Git** - By ATLASSIAN UNIVERSITY | 2024 ↗

**Foundations of Data Structures and Algorithms Specialization** - By University Of Colorado Boulder | 2024 ↗

**Problem Solving** - By HACKERRANK | 2023 ↗

Semifinalist - HACKNUTHON 3.0 | 2022

All Gujarat Rank:175/118K GUJCET | 2021