

SHREYAS MEHTA

Computer Science Engineer | Tech Enthusiast | UG-2

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ACHIEVEMENTS

Academic Performance

IIIT Hyderabad

📅 2023 – Present 📍 Hyderabad, India

- **CGPA: 9.83** (as of July 2023).

Dean’s List Recognition

IIIT Hyderabad

📅 2023 – 2024 📍 Hyderabad, India

- Awarded Dean’s List honors in consecutive Spring and Monsoon semesters for outstanding academic performance during the first year.

National Competitive Examination Achievements

📍 India

- Secured **AIR 1504** in **JEE Advanced 2023** (top 0.8% among 189,744 candidates).
- Achieved **AIR 677** in **JEE Main 2023** (top 0.06% among 1.1 million candidates).
- Scored a perfect **100/100** in **Mathematics (100 percentile)** in JEE Main 2023.
- Secured **AIR 642** in **KVPY-SA 2022** and received the prestigious fellowship from the Indian Institute of Science.

Academic Excellence in Mathematics

IIIT Hyderabad

📅 2023 – Ongoing 📍 Hyderabad, India

- Achieved highest grades in core mathematics courses, including **Real Analysis**, **Linear Algebra**, and **Probability and Statistics**.

National Olympiad Achievements

📍 India

- Qualified for the **Indian National Astronomy Olympiad (INAO)** through NSEA.
- Listed in state merit for **NSEC (National Standard Examination in Chemistry)** and **NSEP (National Standard Examination in Physics)**.
- Cleared the **Indian Olympiad Qualifier in Mathematics (IOQM)** in consecutive years (2020, 2021).
- District topper in the **Vidyarthi Vigyan Manthan (VVM)** examination.

LIFE PHILOSOPHY

“Success is not always about greatness. It’s about consistency. Consistent hard work leads to success. Greatness will come.”

ABOUT ME

Who I Am

A passionate Computer Science undergraduate with a deep interest in problem-solving, mathematics, and technology-driven solutions.

Key Area Interests

Artificial Intelligence, Mathematics, Statistics, and Software Development. Extensive hands-on experience in gas sensor calibration, IoT-based solutions, and scalable software architectures.

Commitment to Growth

Driven by curiosity and a growth mindset, committed to lifelong learning and impactful collaborations.

STRENGTHS AND SKILLS

Problem Solving

Mathematical Aptitude

Team Collaboration

Consistency

Leadership

Critical Thinking

Commitment

C/C++

Python

JavaScript

Assembly Language

MySQL

CockroachDB

Arduino

Jupyter Notebook

React

Matplotlib

HTML/CSS/JavaScript

Render

Bash

MongoDB

Git & GitHub

Linux

Node.js

Dash

WebSockets

PostgreSQL

Fusion 360

Flask

Pandas

PUBLICATIONS

Machine Learning Integration in Gas Sensors

Under Review, IEEE

📅 2025

- Led research on integrating machine learning techniques with gas sensor systems, developing novel mathematical models for environmental factor correlation.
- **Role:** Primary author responsible for mathematical modeling and ML methodology integration.
- **Research conducted under:** ESW Course, Monsoon 2024

Advanced Sensor Calibration Framework

Ongoing Research

📅 2025

- Developing an innovative mathematical framework to enhance gas sensor accuracy through advanced calibration methodologies.
- **Role:** Lead researcher for mathematical derivations and calibration technique optimization.
- **Research conducted under:** ESW Course, Monsoon 2024

PROJECTS

NetFileX - Distributed File Management System

C, Networking, Multithreading

📅 2024

📍 github.com/shreyasMehta05/NetFileX

- Developed a distributed file management system with centralized Naming Server architecture and multiple Storage Servers
- Implemented comprehensive file operations including **read, write, delete,** and **metadata querying**
- Engineered **redundant storage mechanisms** for **fault tolerance** and **thread management** for concurrent requests
- Built distributed architecture enabling **horizontal scalability**

Pro-Pixel - Advanced Media Editing Platform

JavaScript, HTML, CSS, Python, Flask

📅 2023

📍 github.com/shreyasMehta05/Pro-Pixel

- Built a **full-stack photo and video editing platform** with secure **user authentication** and **JWT**
- Implemented comprehensive **media storage** with **search functionality** and **real-time video preview**
- Developed **admin panel** for managing **user access** and platform settings
- Deployed platform using cloud services with **CockroachDB** and **PostgreSQL** backend

shreyas.sh - Custom Unix Shell

C, POSIX API, Shell Scripting

📅 2024

📍 github.com/shreyasMehta05/shreyas.sh

- Engineered a Unix-like shell with support for built-in **commands, aliases,** and **custom functions**
- Implemented **I/O redirection** and **background/foreground process management**
- Developed **custom logging, process monitoring,** and **man page fetching capabilities**

EDUCATION

B.Tech. in Computer Science and Engineering

International Institute of Information Technology, Hyderabad

📅 2023 – Present

📍 Hyderabad, India

- CGPA: 9.83 (as of July 2023)

Senior Secondary Education (Class XII)

Delhi Public School

📅 2021 – 2023

📍 Patiala, India

- Percentage: 97.4%

Secondary Education (Class X)

Delhi Public School

📅 2014 – 2021

📍 Patiala, India

- Percentage: 99%

KEY COURSES TAKEN

Computer Science & Engineering

Computer Systems Organization

Digital Systems and Microcontrollers

Data Structures and Algorithms

Algorithm Analysis and Design

Operating Systems and Networks

Design and Analysis of Software Systems

Data and Applications

Mathematics & Theory

Real Analysis

Linear Algebra

Discrete Structures

Probability and Statistics

Automata Theory

Performance Modeling of Computer Software

Numerical Algorithms

Specialized Areas

Machine and Data Learning

Introduction to IoT

Embedded Systems Workshop

Introduction to Software Systems

Computer Graphics

- Integrated **signal handling** and **process management** for advanced user control
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AdvancedXV6 - Operating System Enhancement

C, XV6, RISC-V

📅 2024

📍 github.com/shreyasMehta05/AdvancedXV6

- Reengineered XV6 operating system for **RISC-V multiprocessor systems**
 - Implemented custom **system calls** and advanced **scheduling algorithms** (Lottery, MLFQ)
 - Enhanced **memory management** and **process scheduling** for improved resource utilization
 - Optimized system performance for **multiprocessor environments**
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FallSafeTech - IoT Safety Monitoring

IoT, Python, Node.js, Flask

📅 2023

📍 github.com/shreyasMehta05/FallSafeTech

- Developed smart home safety monitoring solution with **real-time fall detection**
 - Implemented research-based algorithm for **fall detection and classification**
 - Created automated **emergency notification system** with caregiver alert management
 - Built integrated **monitoring dashboard** for **real-time alerts** and **data visualization**
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SortSync - Advanced Sorting Algorithm

C, Parallel Programming

📅 2024

📍 github.com/shreyasMehta05/SortSync

- Engineered **hybrid sorting algorithm** combining **parallel merge sort** and **count sort**
- Conducted comprehensive **performance benchmarking** against standard algorithms
- Achieved **significant performance improvements** for large datasets
- Implemented **parallel processing optimization techniques**