



Jeedula Siddharth
Chemical Engineering
Indian Institute of Technology Bombay

23B0378
B.Tech
Gender: Male
DOB: 16/06/2006

Examination	Board	Institute	Year	Grade
Graduation	IIT Bombay	IIT Bombay	2027	7.34
Intermediate	TSBIE	Sri Chaitanya Junior College	2023	97.9%
Matriculation	TS SSC	SPR School Of Excellence	2021	10

SCHOLASTIC ACHIEVEMENTS

- Achieved Top **3.3** percentile in **JEE Advanced** examination among **0.18 million+** students in India ('23)
- Achieved **99.78** percentile in **JEE Main** examination among **1 million+** candidates across India ('23)
- Achieved **99.77** percentile in **TS EAMCET** ranking among **0.3 million+** candidates in Telangana ('23)

KEY PROJECTS

Wids Cipher | WIDS: Winter in Data Science

(Autumn'24)

Analytics Club, IIT Bombay

- Developed a **Siamese neural network** in **TensorFlow** for one-shot face verification, leveraging contrastive loss and training on structured triplets of anchor, positive, and negative images to learn facial similarity
- Implemented real-time image capture and **preprocessing** with **OpenCV** for triplet training sampling
- Combined **CNN**-based feature extraction with computer vision to enable efficient face-based authentication
- Used **GPU acceleration** and custom data loaders to optimize triplet training and improve model performance

Gesture Based Text Creation And Recognition | Self Project

(Summer'24)

- Designed a high-precision **CNN** using **TensorFlow** for accurate **MNIST** handwritten digit recognition
- Used **MediaPipe** for accurate hand tracking and gesture recognition to enable contactless system interaction
- Built a virtual canvas with **OpenCV** for gesture-controlled drawing, erasing, resizing and digit prediction
- Implemented real-time gesture-based system controls by integrating **Pycaw** for volume adjustment and **WMI** for brightness control, enabling seamless, touchless interaction on Windows using hand tracking

Portfolio Website Development | Self Project

(Spring'25)

- Designed and developed a personal portfolio website to showcase projects, resume, and contact information
- Used JavaScript-based interactivity, for project filtering, smooth scrolling, and responsive navigation bar
- Deployed the portfolio website using GitHub Pages, ensured cross-device compatibility, improved load performance, and followed semantic HTML and CSS best practices for clean structure and appearance

OTHER PROJECTS

Drag and Drop | Self Project

(Summer'24)

- Developed a real-time hand gesture-based image interaction system using **OpenCV** and **MediaPipe**, enabling users to control and move on-screen images through finger movements detected via live video
- Implemented a gesture-based drag-and-drop mechanism where users could pinch their thumb and index finger to seamlessly pick up, move, and place images across the screen with smooth visual transitions
- Optimized performance with FPS and boundary logic for responsive interaction and performance

PID Stabilized Drone | Team Course Project: Makerspace

(Spring'24)

Guide: Prof. Joseph John, IIT Bombay

- Built a self-stabilizing drone with **WiFi control** and **PID** stabilization for enhanced flight stability
- Integrated key components like **Arduino** and wireless modules through soldering for reliable connectivity
- Used **CAD** and **Arduino** programming to design and implement mechanical and electrical systems
- Performed connection tests and flight trials to fine-tune the drone, ensuring smooth operation and stability

- Collaborated in a team to design and build an **IMU sensor**-controlled car for obstacle navigation
- Built an **IMU controller** using **ESP01**, **MPU6050**, and a battery-powered circuit for navigation control
- Constructed the bot chassis from acrylic, with motor-driven wheels controlled by a motor driver
- Integrated **MPU6050** with **ESP01** to send motion data to **ESP32**, enabling precise motor driver control

LEADERSHIP ROLES

Events and Public Relations Coordinator | E-Cell, IIT Bombay

(Jan-Apr'24)

- Organized **EnB Meetup & Startup Expo**, linking **150+** startups with **30+** mentors, investors, and VCs
- Led **FInCoF platform**, onboarding **150+** startups and enabling **120+** student internships
- Contributed to **Founders' Garage**, helping **200+** enthusiasts explore startup ideas through 7 sessions
- Organized **E-Summit'25**, a flagship entrepreneurial event featuring speaker sessions, a startup pitch competition; led a team of 11, handled speaker coordination, worked closely with PR and marketing team

Mentor | Abhyuday, IIT Bombay

(Aug-Nov'24)

College Representative Program

- Mentored **30+** students from various colleges in planning impactful projects and exploring opportunities
- Conducted interactive sessions to enhance creativity through innovative tasks and hands-on activities
- Guided students in crafting strategies for social impact using real-world challenges and applied learning

TECHNICAL SKILLS

Languages	C++, Python
Library	Numpy, Matplotlib, Pandas, TensorFlow, Keras, OpenCV, Mediapipe
Development	HTML, CSS, JavaScript, \LaTeX
Software	Git, LaserCad, Arduino IDE, Fusion360, Blender, Numpy, Matplotlib, Pandas, make

COURSES UNDERTAKEN

Data Science	Statistical Machine Learning and Data Mining, AI and Data Science
Computer Science	Computer Programming and Utilization
Mathematics	Differential Calculus, Integral Calculus, Linear Algebra, Differential Equations
Chemical	Material and Energy Balances, Chemical Engineering Thermodynamics, Process Fluid Mechanics, Chemical Reaction Engineering, Heat And Mass Transfer, Separation Processes, Introduction to Numerical Analysis
Physics	Introduction to Classical and Quantum Physics
Basic Engineering	Doing Sociology, Introduction to Design, Biology, Economics, Chemistry Lab, Physics Lab, Chemical Engineering Lab, Gender in Workspace, Environmental Studies, Environmental Studies: Science and Engineering

EXTRACURRICULAR ACTIVITIES

- Completed a year-long training in cricket under the National Sports Organization (**NSO**)
- Competed in various kho-kho tournaments including TELCA tournament twice, GC, Freshiesta earning **Silver and Gold** medals in TELCA and **Silver** in Freshiesta
- Competed in various cricket tournaments, including the Fresher's Cricket League, TELCA, Inter Wing Competition under Hostel-1, winning **Silver** medals in FCL and the Inter Wing Competition
- Engaged in sustainability efforts by participating in beach cleanup drives organized by **Abhyuday**, IIT Bombay's social body, promoting environmental awareness and community responsibility
- Designed an eco-friendly prototype in a **Design** course project, creatively re-purposing used Lay's packets into reusable and durable shopping tags to encourage plastic recycling and reduce environmental impact