



Manas Poddar

Roll No.:CH21B026

B.Tech - Chemical Engineering

Indian Institute Of Technology, Tirupati

<https://scienmanas.xyz>

+91-9559530544

iamscientistmanas@gmail.com

ch21b026@iittp.ac.in

linkedin.com/in/scienmanas

Github: scienmanas

EDUCATION

Degree/Certificate	Institute/Board	CGPA/Percentage	Year
B.Tech	Indian Institute of Technology, Tirupati	8.35	2021-Present
Senior Secondary	UP Board	82.4%	2021
Secondary	ICSE Board	93.0%	2019

EXPERIENCE

- **PSE Lab, IIT Tirupati** Sept 2023 - Present
Student Researcher, under Prof. Nabil M Tirupati, India
 - Modeled the **William Otto reactor dynamics** in real-time using the **finite element method** and created a **DDPG model** with Gymnasium and Stable Baseline to track set-points from any initial state.
 - Currently working on a **Newell Evaporator**, modeling the reactor using Python with appropriate **numerical techniques**.

PROJECTS

- **Sandy AI** [Github]
Personal/Hackathon Project
 - **Voice-Controlled Companion:** AI designed for cybersecurity tasks.
 - **System Performance Check:** Monitors RAM, CPU, disk, and processes, analyzing data with algorithms & LLM.
 - **Threat Analysis:** Evaluates URLs for phishing risks and scans for known malware.
 - **Tech Stack:** Python, PSUtils, Gen-AI, Algorithms.
- **CertiMailer** | [🔗 Live](#) [Github]
Personal Project
 - Developed a full-fledged platform that automatically generates and distributes personalized certificates to participants, with features for both developers and general users.
 - For developers: A Python script to automate certificate generation and mailing. For organizations (under development): A comprehensive web application with admin panels, verification systems, and scalable deployment
 - **Tech Stack:** Python, Shell, MongoDB, Express, React, Next.js, Tailwind CSS, GCP
- **Portfolio** | [🔗 Live](#) [Github]
Personal Project
 - Developed a Portfolio website using **Framer motion** and **AWS Lambda functions** for animation and form filling .
 - Implemented a **static blog section**, where new blog posts can be easily added by following a predefined folder structure and using Markdown (.md) files, making content management simple and efficient. Also made a custom **AI Chatbot** by fine-tuning gemini flash model.
 - **Tech Stack:** Next JS, AWS Lambda (serverless), Framer, Tailwind CSS, Gen-AI

Note: I have built beautiful templates and several small projects by myself, which can be found on my GitHub [\[link\]](#). Two of the highlighted are Landify [\[link\]](#) and Valentinier [\[link\]](#). Apart from these, I am also very active in reporting bugs, which can be observed in my GitHub profile.







TECHNICAL SKILLS

- **Programming:** Python, JavaScript, TypeScript, C/C++, SQL.
- **Frontend Development:** React, Next.js, Tailwind CSS, React Native, Framer Motion, Three JS.
- **Backend and Full Stack:** Node.js, Express, MERN Stack.
- **DevOps and Cloud:** Git, Docker, GCP (basic), AWS (basic).
- **Databases:** MySQL, MongoDB, Chroma DB
- **Other Tools:** OpenCV, NumPy, Pandas, Gymnasium, stable-baselines, Linux.

POSITIONS OF RESPONSIBILITY

- **Tech Team,** BTC India, IIT Bombay Sept 2024 - Dec 2025
- **Club Head,** Gagan Vedhi, IIT Tirupati May. 2022 - Apr. 2024
- **Core Member,** Idea Square IIT Tirupati Apr. 2023 - Apr. 2024

AWARDS & ACHIEVEMENTS

- **Top Presentation**  : Our team was honored to be recognized as one of the **top three presenters** at the **Indo-Canadian Symposium**, jointly organized by Dalhousie University and the Indian Institute of Technology Tirupati. (Feb 2024)
 - **Winner - HackBells 2.0**  : Won 24-hour national-level hackathon (**out of 500+ teams**) by developing a cybersecurity tool having 4 different kinds of scripts for threat checking (Feb 2024) .
 - **Finalist - EyeInvent**  : Got into **top 10 teams** among **different startups and teams** all over India for making an innovative model that reduces the doctor's effort (Feb 2024).
 - **Top 10% in DeepRacer Student Nationals - July 2023**  : Received \$50 for ranking in the top 10% among 3000+ participants by designing an efficient reward function. (July 2023)
 - **Bronze Medal in Cognitive Garage - Inter IIT Tech Meet 11.0**  : Awarded Bronze Medal for an innovative solution addressing complex decision-making at Inter IIT Tech Meet 11.0 (Jan–Feb 2023).
 - **Silver Medalist - Cosmic Innovation Challenge**  : Received Silver Medal along with INR 10,000 for our innovative solution to the problem of space debris in Space Tech Summit, Shaastra, IIT Madras (Jan 2023)
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