

Manas Poddar

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EDUCATION

Indian Institute of Technology Tirupati
B.Tech in Chemical Engineering; CGPA: 8.37/10.0

Tirupati, India
Dec 2021 – Present

SUMMARY

Innovative software engineer with a passion for AI, automation, and problem-solving, seeking opportunities to apply skills in full-stack development and machine learning.

SKILLS

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

RESEARCH EXPERIENCE

Indian Institute of Technology Tirupati Tirupati, India
Project Guide: Dr. Nabil, Department of Chemical Engineering *Sept 2023 – Present*

- Modeled the William otto reactor dynamics by writing in real-time by using finite element method.
- Using **gymnasium** and **stable baseline** successfully created a DDPG model capable of tracking set-points with any initial state.
- Currently working on Catalytic cracker unit, by modelling the reactor using python by applying appropriate numerical technique

PROJECTS [[ALL PROJECTS ON GITHUB](#)]

My Buddy | [GitHub](#) | 🌐 [Live](#)

- Developed an AI-powered web application that facilitates **personalized, empathetic conversations** using Gemini LLM, enabling users to create chat environments tailored to their emotional needs.
- Integrated prompt engineering to deliver unique responses in various personas (friend, parent, counselor), providing comfort and emotional support.
- **Tech Stack:** MongoDB, Express, React, Node.js, Tailwind CSS, GCP, Gemini API.

CertiMailer | [GitHub](#) | 🌐 [Live](#)

- 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: A comprehensive web application with admin panels, verification systems, and scalable deployment.
- **Tech Stack:** Python, Shell, MongoDB, Express, React, Next.js, Tailwind CSS, GCP, domain management.

HackBells Bot | [GitHub](#)

- Built a **cybersecurity automation tool** with a suite of scripts that analyze user safety, scan for vulnerabilities, and protect against potential threats.
- **Tech Stack:** Python, Scrapy, SOCKS5 proxy, APIs, h-top, Shell.

Landify | [GitHub](#) | 🌐 [Live](#)

- Developed a fully responsive **landing page template** featuring sections for pricing, testimonials, and a blog, designed with a visually pleasing gradient background.
- 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.
- Easy to customize by simply updating variables, allowing for quick deployment and modifications.
- **Tech Stack:** Next.js, Express, Tailwind CSS.

Minor Projects | [GitHub](#)

- Developed a variety of smaller-scale tools and applications including: BookScraper, TextUtils, InfoPulse, ValenTiner, Insta Follower Bot, Pomodoro App, Quizler App, Snake Game.

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 a 24 hours National level hackathon (**out of 500+ teams**) by developing a cyber security 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).
- **Gold Medal - iGEM:** We built an app for IISER Tirupati that won them gold medal in iGEM 2023 on global level (Nov 2023).
- **Top 10% in DeepRacer Student Nationals - July 2023** 🏆 : Received \$50 as a prize for being in the top 10% in the India Region (**out of 3000+ students**) by designing an efficient and optimized Reward Function (July 2023)
- **Bronze Medal in Cognitive Garage - Inter IIT Tech Meet 11.0** 🏆 : Awarded Bronze Medal in Cognitive Garage Problem Statement (Easy automation of complex decision making) in Inter IIT Tech Meet 11.0 (Jan 2023 - 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)

POSITION OF RESPONSIBILITY

Gagan Vedhi - Astronomy Club, IIT Tirupati

June 2022 – May 2024

Co-Coordinator (June 2022 – May 2023) | Coordinator (May 2023 – May 2024)

- Assisted in coordinating club activities.
- Contributed to the planning and execution of events.
- Leading and overseeing club activities and initiatives. Started and Coordinated Rocket Modelling Project as one of the Head of the project.(Jun 2023 – Present)
- Successfully Coordinated and executed AETHEReum, The Annual Collaborative Astrofest of IIT and IISER Tirupati as one of the Heads. (Aug 2023 – Oct 2023)

IDEAS² - Tinkering and Innovation Hub of IIT Tirupati

Aug 2023 – May 2024

Core Member (Aug 2023 – May 2024)

- Coordinated in setting up Infrastructure for the Idea Square.
- Collaborated with Gagan Vedhi for Rocket Modelling Project.

HOBBIES

Cricket, Badminton, Dancing, Playing Piano and Reading Books