# Tanmoy Talukdar

Portfolio

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♠ CodeForces

LeetCode

### EDUCATION

National Institute of Technology, Silchar

B. Tech in Electronics and Communication Engineering; CGPA: 8.86

2023 - Present

Silchar, India

Sai Vikash Vidya Niketan

Higher Secondary: Percentage: 93.4

Assam, India 2023

Model English School Senior Secondary: Percentage: 97.5 Assam, India

2021

# Projects

### E-Clinic

Repository Link

Oct 2024

- o Developed a personalized health scoring system using ML models (Random Forest, XGBoost, Neural Networks) to provide lifestyle recommendations.
- o Integrated Python-based data processing and Gen AI tools like OpenAI, LangChain for interactive user experience.
- o Collaborated in a team of 2 to build the complete system from data processing to frontend interaction.
- o Tools & Technologies used: Pandas, NumPy, scikit-learn, TensorFlow, OpenAI and LangChain.

## **DiaGNO**

Repository Link

March 2025

- $\circ$  Developed an AI-driven web app for disease prediction using symptom input in **natural language** and **cosine** similarity-based ranking.
- o Implemented an adaptive Q&A refinement process for accurate diagnosis via an intuitive Flask interface.
- o Collaborated in a team of 3 to build the complete Web App from natural language processing to disease prediction.
- o Tools & Technologies used: Python, Flask, Scikit-learn, Pandas, NLTK.

# AI Image Generator

Repository Link

Feb 2025

- Built an AI-based tool to generate high-resolution images by blending user-uploaded visuals and text prompts.
- o Integrated CLIP Interrogator for feature extraction, T5 for summarization, and Stable Diffusion for image generation.
- Collaborated in a team of 3; ensured coherence and quality by integrating Transformers and Diffusers libraries.
- o Tools & Technologies used: Pytorch, Transformers, Diffusers ,Flask.

- Languages: C, C++, Python, HTML, CSS, JavaScript
- Frameworks: TensorFlow, scikit-learn, Keras
- Libraries: Pandas, NumPy, OpenCV, NLTK
- Tools: Git, GitHub, Arduino, VS Code, Matlab, CoppeliaSim, Xilinx
- Soft Skills: Leadership, Event Management, Teamwork, Time Management

### Positions of Responsibility

# NITS Embedded and Robotics Development Society, NIT Silchar

Onsite

ML Head (Full-time)

Sep 2024 - Present

- o Participated actively in club meetings, workshops and hands-on events and contributing to team projects, fostering a collaborative environment.
- o Organized various robotics based events and activities for the entire freshman year. These activities encouraged teamwork and problem-solving, providing students with an engaging introduction to robotics.

# CERTIFICATIONS

• Certification in Machine Learning Specialization: Coursera

### Honors and Awards

- Qualified for the Final Round of Neurathon 2025 Feb, 2025
- Secured **Top 12** position in the 1st quiz round of **Robotrix 2025** and qualified for the **Final round** Dec, 2024
- Secured 1st position in Data Strata Hackathon- Nov, 2024
- Secured **Top 3** position in **Riddlex 2025** April, 2025