GARIMA SAGAR

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EDUCATION

B. TECH Software Engineering	2023-2027	Delhi Technological University, New Delhi	8.092(current)
CBSE (Class XII)	2023	Faith Academy School	87.2 %
CBSE (Class X)	2021	Faith Academy School	95 %

ACADEMIC PROJECTS

ThermoTunes |April 2025 – May 2025| GitHub

- Trained an LSTM model on 200+ years of global temperature data to generate climate-driven MIDI music.
- Built a full pipeline for preprocessing, sequence generation, model training, and MIDI output.
- Created and exported 1,000+ notes and 6 chord sets, then visualized musical output in a Streamlit interface.

MediCLIP – Multimodal Medical Query Summarizer|May 2024 – June 2024| GitHub

- Built an AI-driven system using **OpenAI CLIP and Gemini** to summarize patient symptom inputs and medical images with over **85% semantic accuracy**.
- Trained on 3,000+ image-text samples to improve patient system usability and accessibility by 40%.
- Reduced summarization noise by **30%** through prompt engineering and output filtering, enhancing medical interpretability.

WORK EXPERIENCE

Machine Learning Research Intern | DTU | May 2024 - Present | GitHub

- Optimized BART and T5 models for abstractive medical question summarization.
- Enhanced medical data interpretation using **Vision-Language Model CLIP**, leading to an increase in the model's performance on complex medical image-text correlations.
- Preprocessed the **Multimodal MMQS dataset** (3000+ data points), ensuring data quality and reducing training time by 30% through efficient data handling techniques.
- Revamped the CLIPSyntel pipeline, generating more accurate and informative medical question summaries.
- Applied **generative AI** techniques to improve context generation, enhancing the overall output by generating more contextually accurate responses.

Lab-On-Wheels USIP Intern | DTU | Sept 2024 - Feb 2024

- Delivered Python training to 50+ underserved students using DTU's mobile lab model.
- Achieved a 60% improvement in comprehension scores through tailored lesson design and practical exercises.

Relevant Coursework

Data Structures & Algorithms, Machine Learning, Operating Systems, DBMS, Engineering Mathematics,Python Programming

TECHNOLOGIES AND FRAMEWORKS

- **Languages & Tools:** Python, C, C++, Git, GitHub, MySQL
- **Machine Learning:** PyTorch, Scikit-learn, Jupyter Notebook, Google Colab
- **Web Development:** HTML, CSS, JavaScript, Flask
- **Data Processing & Visualization:** Pandas, NumPy, Matplotlib, VS Code

LEADERSHIP & ACHIEVEMENTS

- **WIE Coordinator**, IEEE Delhi Section Student Network (Aug 2024 – Apr 2025)
- **Social Media Coordinator**, **IEEE India Council** (May 2025 – Present)
- **GHCI 2024 Scholar, AnitaB.org** – Awarded for academic merit and contributions to inclusion in tech (May 2024)