



EDUCATION

| Year | Degree/Exam | Institute | CGPA/Marks |
|------|------------------|-------------------------------|------------|
| 2025 | B.TECH | IIT Kharagpur | 8.15 / 10 |
| 2021 | Class XII, TSBIE | Sri Chaitanya Junior Kalasala | 98.4% |
| 2019 | Class X, TSBSE | Akshara Concept School | 9.3 / 10 |

INTERNSHIPS

Computer Vision Research Intern | IIT Hyderabad

Apr' 23 - July' 23

Objective: To develop a Semantic Segmentation model for Self-Driving Cars using LiDAR | Principal Guide: Dr. C Krishna Mohan

- Experimented with **3D Semantic Segmentation** models for object identification in self-driving cars to ensure safe navigation.
- Applied **PointNet** Architecture on various Autonomous datasets like **VKITTI** and Indoor datasets like **ShapeNet10** and **S3DIS**.
- Employed Advanced 3D Deep Learning Architectures like **PointNet++** and **PVCN** to improve Segmentation Accuracy.
- Applied libraries such as **TensorFlow**, **PyTorch** to leverage Semantic Segmentation algorithms to ensure optimal results.

NLP Research Intern | IIT Kharagpur

Feb' 23 – Apr' 23

Objective: To develop a model for Automatic Resource Sequencing for E-learning | Principal Guide: Dr. Jiaul Hoque Paik

- Extracted 48 important Physics topics from 250 documents using **LDA (Latent Dirichlet Allocation)** probabilistic model.
- Tackled the problem of converting a document multigraph to a directed acyclic graph by applying **Minimum FAS**.
- Applied libraries such as **NLTK**, **NetworkX**, **Gensim** to develop the sequencing algorithm to achieve the optimum outcome.

PROJECTS

CodeVerse | Cross Coding Platform

- Developed a web-based search engine for coding questions from various coding platforms like Codeforces, LeetCode.
- Utilized **Selenium** for efficient web scraping of **3000+** coding questions, subsequently performing data preprocessing.
- Implemented the **TF-IDF** algorithm to optimize search functionality on the preprocessed data and developed client-side functionality using **HTML**, **CSS**, and **JavaScript**, integrated **Flask** for the back-end, and deployed the interface on render.com.

Virtual Gesture Controlled Key and Volume System

- Developed a gesture-based control system, employing **OpenCV** for image processing and drawing capabilities.
- Accurate hand tracking was achieved through utilization of the **MediaPipe** library, improving gesture recognition precision.
- Leveraged **Pycaw** and **Pynput** libraries to effortlessly control the system's volume and enable keyboard input emulation.

Hate Speech Classification | Course Project

- Utilized pre-trained **Word2Vec** model on **HateXplain** dataset to generate input feature vectors for subsequent analysis.
- Implemented hate speech classification employing **Word2Vec** with **Neural Networks**, **RNNs**, and **Transformer (BERT)**.
- Applied **Zero**, **Few-shot prompting** with **Flan-T5** (small and base) model and finetuned **Flan-T5-base** using **Peft**, **LoRA**.

COMPETITION/CONFERENCE

- Participated in **OpenIIT Data Analytics '23** as a part of **Data Warriors** Team developing a Tourist Arrival Prediction System.

SKILLS AND EXPERTISE

- **Programming Languages:** Proficient: C | C++ | Python | | Familiar: MATLAB | HTML | CSS | JavaScript
- **Libraries and Frameworks:** NumPy | Pandas | Matplotlib | React.js | TensorFlow | scikit-learn | OpenCV | NetworkX
- **Softwares and Tools:** Git | GitHub | MATLAB | Google Colaboratory | VSCode | Tinker CAD | Free CAD | CLion | PyCharm

COURSEWORK INFORMATION

- **Academic Courses:** Programming & Data Structures Theory and Lab | Machine Learning Foundations & Applications | Natural Language Processing | Advanced Digital Image Processing & Computer Vision | Probability & Statistics | Economics | Linear Algebra | Algorithms Lab | Foundations of Cryptography | Computer Applications in Metallurgical Processes

POSITIONS OF RESPONSIBILITY

Artificial Intelligence Head | SPARK4AI Club | IIT Kharagpur.

Nov' 23 - Present

- Organised and conducted PAN IIT Gen AI hackathon in collaboration with AI4ICPS and AI Council to promote AI innovation.
- Contributed to CAMEL agents and Spatio-Temporal projects within the SPARK4AI, demonstrating interest in AI applications.

AWARDS AND ACHIEVEMENTS

- Secured a rank in the top 1.3% among 1 Million+ candidates across India who appeared for the JEE MAIN 2021 Examination.
- Secured a rank in the top 0.6% among 2 Lakh+ candidates across India who appeared for the TS EAMCET 2021 Examination.

EXTRA CURRICULAR ACTIVITIES

- One of the finalists for the event "Kshitij Mathematics Olympiad" conducted by Asia's Largest Techno-Management Fest.
- As a Chess Club Member, I participated in the New Year's Bullet Arena, Open IIT and Inter-Departmental Chess Tournaments.