### **CONTACT**



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# Sai Ravi Teja Gangavarapu

UG Student CSE

Mahindra University, École Centrale School of Engineering Hyderabad, India

linktr.ee/floaredor

github.com/FloareDor

### **Education**

### Computer Science and Engineering

Mahindra University

12<sup>th</sup> / A-Levels (CAIE) Kennedy High the Global A 2020

**10th / IGCSE** Ambitus World School B year

## **Core Courses**

Machine Learning
Neural Networks and
Deep learning
DSA
Computer Networks
Fundamentals of Cyber
security
NLP
Big Data and DBMS

### **ACHEIVEMENTS**

Selected as a potential NVIDIA NLP student ambassador, 2022-2023

Hack4hire hackathon winner Team Lead, 2023 (500+ participants)

Node runner hackathon winner (built a raft consensus node in 24 hours)

Best All Rounder X<sup>th</sup> Class, 2018

# <u>Participations</u>

NASSCOM T-AIM 2022

Sirion Labs Hackathon 2022

**IIMUN 2019** 

# PROFILE / Objective

Distinctly curios and zealous person, always working on multiple projects or tinkering with the computer to keep myself busy at peace. Love to explore and play around with technology that is new to me.

# **Major / Course / Volunteer Projects**

1. Title: Intelligent Chatbot

June 2021

**Description:** Built a multi-functional web scraping discord bot that can act as a dynamic emotion based chat bot. Tools used: Keras, Praw and discord.py

Title : Application of Genetic Algorithm in video games July 2021

**Description:** Applied NEAT algorithm to train a model in Flappy Bird game. Utilized genetic algorithm to improve the model's performance. Achieved a high score and never lost the game.

3. Title: E2E Encrypted Chat App

Aug 2021

**Description: Built a** fully E2E encrypted chat room based on TCP protocol and the RSA Algorithm.

4. Title : ScapeGan September 2021

**Description:** Built a basic functioning GAN from the ground up using Pytorch and deployed a Generative Adversial Network (stylegan2) on a DGX-1 to generate Earth Landscape images. Made a bot to download data from a particular subreddit for the same. **Example GIF of the progress.** Had also experimented with transfer learning using flower dataset, to achieve interesting outputs.

5. Title: Personal Research

Ongoing

**Description:** Utilizing genetic algorithm to optimize CNN architecture for classification of music genres. Hoping to achieve the same using quantum genetic algorithm.

6. Title : Floareum (1 Month)
Dec 2021 - Jan 2022

**Description:** A (private) (POW) Cryptocurrency that works on the network which has been implemented from the ground up using Requests for worldwide transactions and ECDSA algorithm for authentication.

**7. Title**: R.E.C.O.N (compute cluster)

Project Mentor: Praveen Kumar Alapati

Jan 2022

**Description:** Setup a remote compute cluster and used Slurm + MPI to deploy parallel mathematical programs. And then helped build a physical Octa-Raspberry pi cluster.



### **LANGUAGES**

C, C++, HTML5, PYTHON, JS, JAVA, GDScript, Bash UNIX shell, SQL, C#

#### **TOOLS AND LIBRARIES**

Git, Tensorflow, Open CV, MATLAB, PyTorch, NLTK, Figma, MySQL, Linux

### **Volunteered**

#### **CSIS ASHA**

National Workshop (2022)

#### **MURS**

Undergraduate Research Symposium (2021)

### Language

**English** 

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Telugu

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Hindi

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### Hobbies

### **Music Production**

Ambient / Electronica

#### **Performing**

Guitar and vocals

#### **Astrophysics**

I study this for the funzies.

### Stargazing

It helps me perceive life from interesting perspectives.

8. Title: Music Generator

Project Mentor: Sanatan Sukhija

May 2022 - June 2022

**Description:** Built a music generator which uses midi files as input and generates output audio, utilizing multi-layer LSTM RNN network.

9. Title: Baja IOT (1 Month)

May 2022

**Description:** Operated with Raspberry PICOs and I2C protocol to build data capturing system to obtain, display and store the wheel speed of a buggy. Secondarily, worked on wiring the electrical components of the vehicle.

10. Title: Frontend and Backend Development (<u>Hack4hire</u> winner)
June 2022 - July 2022 (<u>Repository</u>)

**Description:** Built multiple websites from the ground up for an SMMA Agency, portfolio, a chat site with decentralized storage, E2E Encryption and intelligent task tracker site. Tools used: Figma, React.js, Three.js, tailwind.css, Gun.js, Mongodb, Vue.js, Flask

11. Title: Sentiment Analysis on

1) Ukranian President 2) ChatGPT generated content

#### **WIP Paper**

Project Mentor: Yayati Gupta and Aayushi Tandon July 2022 - Dec 2022 | Jan 2023 - Ongoing

**Description:** designed and train a deep learning model using Python and TensorFlow, and to preprocess and clean a large dataset of customer reviews. Utilized techniques such as tokenization, stemming, and stop word removal to improve the accuracy of the model. Also implemented techniques such as transfer learning, using pre-trained word embeddings to improve the performance of the model.

**12. Title**: Song Similarity using unsupervised deep learning

Project Mentor: Dr. Prafulla Kalapatapu

Ongoing

**Description:** Working on determining song similarity using Adversarially Learned Inference GAN model, with a focus on Indian classical music.

**13. Title** : Automatically creating Musical Compositions using Artificial Intelligence

Project Mentor: Dr. Prafulla K and Dr. Arya Kumar B

**Description:** Extracting features and building rules for the genetic algorithm to generate Indian classical music.

**14. Title**: Untapping customer preferences using deep neural networks.

Oct 2022 - Jan 2023

**Description:** Applied and optimized bayesian model to extract insights from 60000 E-commerce reviews that have been collected by us. Submitted to publish in the IEEE transactions journal.

# **Clubs / Mentor / Student Chapters**

**Enigma Club: President** 

Role Responsibility: foster a community of more than 600 like-minded individuals

who share my passion for the field. Duration - 04/2022 - Now

Enigma Club: Technical Team Member -> Projects Team Lead

Role Responsibility: Helped host tech events and sessions, building projects, presenting at tech sessions. Assisted students in building several projects based on NLP, Discord Dev and gamedev.

Duration - 12/2021 - 04/2022 | 04/2021 - 12/2022

Synolo Club: OC Member

Role Responsibility: Organized music events and performed.

Duration - 11/2021 - 04/2022

**Mastershot: Music Director** 

Role Responsibility: Lead the music team of the club, conduct interviews, compose and arrange music for films.

Duration - 01/2022 - Now