G.N.K. Anantha Sai

Biomedical Engineering Student at Osmania University, Hyderabad

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Education

B.E. - Biomedical Engineering, Osmania University Nov 2021 – May 2024
CGPA - 8.30

Diploma - Biomedical Engineering, Government Institute of Electronics Jun 2017 – May 2021
CGPA - 9.05

CBSE, 10 grade, Kendriya Vidyalaya Kanchanbagh 2007 – May 2017
CGPA - 9.20

Publications

Signal to Image Conversion and Convolutional Neural Networks for Physiological Signal Processing: A Review
IEEE Access (Impact Factor: 3.9)

Projects

Myo-Electric Arm
Python | TensorFlow | Arduino | 3D printing
This Project used an EMG extraction system and CNN-LSTM deep learning framework to identify 10 hand gestures from surface EMG signals with 97.66% accuracy. Based on the classification the 3D-printed mechanical arm performs the gesture.

Brain-Tumor Detection and Segmentation with Deep Transfer Learning
TensorFlow | Transfer Learning | CNN
Performed Transfer Learning and Fine-Tuning using various Pre-Trained models on Br35H Kaggle Dataset of 3000 Brain-Tumor MRI scans. Also performed Brain Tumor Segmentation on BraTS 2020.

SkimLit - NLP for Medical Abstracts
NLP | Tensorflow | 1D CNN | LSTM
An NLP model to classify abstract sentences (PubMed 200k RCT dataset) into objective, background, method, result, and conclusion to enable a quick skim through the literature.

BitPredict - Time Series Forecasting for Bitcoin Price
TensorFlow | LSTM | 1D CNN | Time Series Forecasting
In this project, I developed a series of models such as LSTM and 1D CNN in an attempt to predict the price of Bitcoin.

Experience - AI/ML Freelancer

TensorFlow | NLP | CNN | LSTM | Transfer Learning
PROJECTS:
- Brain Tumor Segmentation using UNET and Ensemble Model
- Multi-Modal Biometric Authentication System Using Fingerprint, Iris, and Facial Recognition
- Lung Cancer Detection and Classification Using Transfer Learning
- Amazon Reviews Sentiment Analysis using LSTM
- Fake News Detection system using CNN-LSTM

- Suicide Detection through NLP using GRU, LSTM, and CNN-LSTM Networks
- Skin Cancer Detection Using CNN
- Kidney Stones Classification using CNN
- Brain Tumor Detection Using Custom CNN and Transfer Learning Algorithms
- Gender Classification through NLP using ML Algorithms
- Yoga Pose Detection using MediaPipe Framework

Skills

- **Languages:** C/C++, Python (solved over 60 DSA problems in Leetcode).
- **Deep Learning:** TensorFlow, Scikit Learn, Keras, Regression, Classification, Computer Vision, CNNs, Transfer Learning (Feature Extraction, Fine-Tuning), NLP, Time Series Fundamentals.
- **Microcontrollers** - Arduino.
- Basics of MATLAB and LabVIEW.

Certifications

Cloud Digital Leader - Google Cloud

Extra-Curriculars

Empathy | Leadership | Team work | Discipline

Student Executive Member | IEEE Computer Society

- Student Executive Member for IEEE Computer Society UCEOU Student Branch. Organized technical events, actively participated execution of workshops, talks, and led the organizer and volunteer teams.

Student Organizer | IEEE EMBS

- Student Organizer for **IEEE Engineering in Medicine and Biology Society** Osmania University College of Engineering Student Branch. Organized IoT in Healthcare Workshops, various talks, and worked in the design team.

Cadet, NCC Air Wing

- NCC Cadet, OUCE, Secunderabad Group, 2(T) Air Sqn (Tech). **Reg No. TS21SDF113660**

Achievements

AI | Machine Learning | Programming | Chess

- Winner of Project presentation in College-level Smart India Hackathon (SIH).
- Winner of Project presentation (CSE dept.) at Daksha-2023, Anurag University, Hyderabad.
  - AI-based Yoga pose detection.
- Runner up for Paper Presentation at Promethean 2022 BVRIT College of Engineering.
  - Early Diagnosis for Prenatal Asphyxia Using Deep Learning
- Eenadu District Level Chess Tournament - 2nd Prize
- District-Level Inter-Polytechnic Chess Tournament- 2nd Prize