EDUCATION

Year	Degree/Exam	Institute	CGPA/Marks
2024	M.TECH	IIT Kharagpur	8.29 / 10
2020	Bachelor of technology in ECE	Sree Vidyanikethan Engineering College	83.89%
2016	Board of Intermediate Education, AP	Narayana Junior College	96.3%
2014	Board of Secondary Education, AP	D A V High School	9.7 / 10

COURSEWORK INFORMATION

- Probability and Random Processes for Signals and Systems
- Digital Image Processing
- Deep Learning Foundations and Applications
- Convex Optimization in Control and Signal Processing
- Biomedical Signal Processing
- Linear Algebra in Signals and Systems
- Machine Learning for Signal Processing
- Geometric Methods for Computer Vision
- Statistical Signal Processing
- Medical Image Analysis

PROJECTS

M.Tech Project : Emotion Analysis Of Call Centre Conversation Audio Data   **[Ongoing]**
Guide : Professor Aurobinda Routray
Description :
- Audio Denoising : Utilised Autoencoder for Denoising.
- Speaker Diarization : Segmentation through VAD,Embedding Extraction and Spectral Clustering.
- Emotion Classification : Attention mechanisms like Transformers.
- Aiming to contribute to Call Center efficiency and enhance customer experience.

Coursework Projects :
Unsupervised Classification of Phonocardiogram(PCG)   **[Autumn - 2022]**
- Preprocessed the PCG signals using the Shannon Energy envelope extraction approach.
- Extracted time domain features and performed K-Means Clustering to differentiate normal vs abnormal signals.

Adaptive Probability Filter for removing Salt and Pepper noises in an image   **[Autumn - 2022]**
- Initially, salt (255) and pepper (0) noises are detected in an image and stored in a matrix.
- Removed salt and pepper noises based on the noise-free intensity distribution and repetition in the neighborhood.

Wiener Filter Design and Convergence Analysis for Enhanced Signal Processing   **[Spring - 2023]**
- Designed Optimal FIR wiener Filter for Signal Denoising.
- Performed Convergence Analysis using Steepest Gradient Descent Algorithm.

Lossy, Lossless data Compression and Music Classification   **[Spring - 2023]**
- Lossless Compression of both Text and Images using Huffman Coding
- Music Classification with 512-DCT as a feature vector using Bayesian Classifier
- Lossy Compression of Olivetti Faces dataset using PCA and SVD

SKILLS AND EXPERTISE

- **Programming Languages:** Python, C++,C, Basics of DSA.
- **Softwares and Tools:** Jupyter Notebook, Google collab, Latex, VS Code, Matlab, MS word, MS Powerpoint.
- **Deep Learning Frameworks:** Tensorflow, Pytorch, Keras.
- **Data Manipulation and Visualization:** Numpy, Matplotlib, Scikit-learn, Librosa.
- **Deep Learning Architectures:** DNN, CNN, RNN, GAN, Autoencoder, Transformers.
- **Computer Vision techniques:** Object Detection, Object Tracking, Segmentation, Classification.
- **Speech Processing techniques:** Speaker Diarization, Speech Enhancement, MFCC analysis.

CERTIFICATIONS

- AI for Breast Cancer Detection - Authorized by Johns Hopkins University and offered through Coursera
- Visual Perception for Self-Driving Cars - Authorized by University of Toronto and offered through Coursera

POSITIONS OF RESPONSIBILITY

Teaching Assistant for Signal Processing Systems Design Lab under the guidance of Dr. Debdoot Sheet.

AWARDS AND ACHIEVEMENTS

- Secured **98.38** percentile in GATE 2022 IN paper.
- Offered to the post of EET 2022(Electronics) at NTPC through GATE score.

EXTRA CURRICULAR ACTIVITIES

- Participated in Zonal level THROW BALL Competition held at Srisailam Project and Kothapalli.
- Hobbies : Drawing, Playing Cricket, Listening Music.

!Self declared by the student, CDC could not verify the relevant documents