Adugani Vanjari Akanksh

Bachelor of Technology in Electrical Engineering

Indian Institute of Technology Tirupati, India

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Education Details

Program	Institute	Year	%/CGPA
Bachelor of Technology	Indian Institute of Technology Tirupati	2022	8.63/10
Senior Secondary Education (XII)	Telangana State Board of Intermediate Education	2018	95.5/100
Secondary Education (X)	Telangana State Board of Secondary Education	2016	9.5/10

Areas of Interest

- Data Science, Machine Learning, Deep learning, Computer Vision, Image Processing

Technical Proficiency

Languages	:	Python, C, C++, JavaScript , Java
Micro-Controllers	:	Arduino Development Board , Raspberry PI
Modelling Softwares	:	MATLAB, VHDL, TI-Tina, Model-sim, Microsoft Office,Auto-CAD
Tools and Technologies	:	Tensorflow , Pytorch , HTML , Django, React.js , p5.js , Processing , git, Springboot, Scikit-Learn, Numpy, SciPy

Experiences

- **Software Developer (Backend) at Paytm**
  Guide : Akshay Palshikar(FSM Team) , Ankit Singodia(BINARY Team) **[Jan'23 - Nov'23]**
  - **Abstract**: Worked on implementing new features and enhancement to the existing code base of **FSM** (Field Service Management). Also worked on automation of file processing related to merchant's invoice/bill generated, which was manually done by RA (Revenue Assurance) team.

- **Jr. Data Scientist at Holmusk**
  Guide : Shivshankar Umashankar **[June'22 - Aug'22]**
  - **Abstract**: Worked on improvising the code base of **Neuroblu** web app. Also optimized the code to reduce the Neuroblu dashboard(contains data analytics) latency from 20 sec to 2 sec(**10x times faster**).

Projects

- **Fruit Quality Estimation**
  Guide : Dr. Rama Krishna Sai Gorthi **[Jul'21 - May'22]**
  - **Abstract**: Estimate the size of the fruit from the depth maps which are extracted from the stereo images using ML techniques(BGNet Architecture).

- **Deep learning for Speech Enhancement**
  Guide : Dr. Rama Krishna Sai Gorthi **[Mar'21 - May'21]**
  - **Abstract**: Enhanced a 1D signal(speech) using Machine Learning techniques (UNet++ Architecture).

- **Prediction of flows in power grids using Deep learning**
  Guide : Dr. Vignesh V **[Mar'21 - May'21]**
  - **Abstract**: Proposed deep learning algorithms and architectures to assist the decisions of human operators while operating the power grid. This proposed model helps respond to quickly changing electric demands, quicker restoration of electricity after power disturbances and improved grid security

- **SURF: Speeded Up Robust Features**
  Guide : Dr. Subramanyam Gorthi [Mar'21 - May'21]
  - ○ **Abstract**: The aim of the project was to look into SURF, a novel scale and rotational invariant interest point detector and descriptor and implement it using python.

- **AI Flappy Bird** [Mar'21 - May'21]
  - ○ **Abstract**: Made an AI Flappy Bird game, which will autoplay the game using p5.js and NEAT .

- **Spectrogram and Periodogram analysis of a Signal**
  Guide : Dr. Pooja Vyavahare [Mar'20 - May'20]
  - ○ **Abstract**: The aim of the project was to generate the spectrogram and periodogram of the given input signal using MATLAB and analyse the same.

- **ML Electricity Bot**
  Guide : Dr. Suresh Jain [Mar'20 - May'20]
  - ○ **Abstract**: It is an app that helps to understand the importance of saving electricity. The app uses ML to recognize a given object(eg: TV, Fridge, AC, Grinder, etc) when scanned through the camera and it gives us the electricity it consumed over a period of time(eg: 1 month) when mentioned time the device/appliance is running on daily bases.

- **Indoor Navigation (SIH2020)**
  Guide : Self [Jan'20 - Feb'20]
  - ○ **Abstract**: We have designed a web app which will help us navigate indoor where GPS doesn't work accurately , this is a very user friendly app ,wherein we will just need to upload the building plan which will be stored into the database and we will have our indoor guide ready, then just choose your initial location and your destination ,then the app will guide you to the destination in the shortest path available. The algorithm used is A* and Dijkstra.

- **Terrace Farming Robot (Inter IIT Competition)**
  Guide : Dr. Balaji Subramanian [Nov'19 - Dec'19]
  - ○ **Abstract**: We made a robot which is capable of doing 4 major tasks , like ploughing , seed sowing , watering and harvesting. It is also capable of moving from one step to the other and this is fully autonomous .

- **JPEG Compression**
  Guide : Dr. Vikram Pudi [Oct'19 - Dec'19]
  - ○ **Abstract**: The project aimed to implement the JPEG compression algorithm from scratch. This was done in a group of four.

Relevant Courses

- Machine Learning (Coursera)
- Artificial Intelligence
- Computer Vision
- Signals and Systems
- Digital Systems
- Introduction to Robotics

Achievements

- Secured 1st place in "The Line following Robot" competition held by TechManiacs club, IIT Tirupati in 2019

- Secured 2nd place in "ArduiKnow Challenge" competition held during Tirutsava 2020

- Secured 2nd place in "F.I.R.E"(Flame Imaging Robot Extinguisher), Technical event held during Tirutsava 2020. Built an autonomous robot which follows a black lined path and identifies candles in the maze using Computer Vision (open-cv).

- Secured 3rd place in the Terrace farming robot competition held in Inter IIT TechMeet 8.0

Positions of Responsibility

Placement Representative **[July'21 - Present]**

- To facilitate smooth conduct of placement process for different organizations as IIT Tirupati for over 170 students.

NSS Co - coordinator **[Aug'19 - Aug'20]**

- To conduct and lead various NSS activities in nearby villages. This involves encouraging students to actively contribute to the development of villages by identifying the problems people face and proposing feasible solutions.

Hobbies and Interests

- Playing Badminton, Drawing, Watching web series, and Sci-fi movies.