



Mahati Mangipudi

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Bachelor of Technology

Electrical and Electronics Engineering

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EDUCATION

• National Institute of Technology, Warangal

December 2021- 2025

BTech Electrical and Electronics Engineering

CGPA : 7.68 / 10

Courses: Digital Signal Processing, Electrical machines, Data Structures, Python Programming, Digital Systems

EXPERIENCE

• National Institute of Technology, Warangal

June 2023 - August 2023

Research Intern

[link to the research paper](#)

- Published a research paper in IEEE Xplore titled-"Optimal Solar Array Configuration for Multiple Shade Patterns", which involved **Population-based ML algorithms** and Optimization in solar panels under partial shading conditions.
- Paper is selected for the 10th International Conference of Power Systems(ICPS) 2023, IEEE Bangladesh.
- **Skills used** : MATLAB, Python

PERSONAL PROJECTS

•Hair Style Recommender

- Analysed the shape of the face and provided the hairstyles for those using recommendation systems
- Utilised OpenCV for image processing, Keras for training, CNN to extract features and deployed using Streamlit

•Sentimental Analysis for tweets (NLP)

- Classified tweets into positive and negative using Gaussian **Naive-Bayes** and Bernoulli Naive-Bayes Algorithms
- Obtained an accuracy of 80.1% with Gaussian Naive-Bayes and 88.3% with Bernoulli Naive-Bayes

•Heart Disease Prediction

- Used ML Algorithms **Decision trees, Randomforest, Support Vector Machines** to identify heart-disease patterns.
- Analyzed heart-2020 dataset from UCI Repository and achieved an accuracy of **92%** for support vector machines.

• Shortest Route (Academic Project)

- Implemented Dijkstra's Algorithm with the help of nitw map using Verilog.
- The shortest route between two required places in the college is found through the code.

TECHNICAL SKILLS AND INTERESTS

Programming Languages: C++, Python, MATLAB, SQL

Frameworks and Libraries: Numpy, Pandas, Matplotlib, Scikit-learn, Pytorch, Tensorflow, OpenCV, Streamlit

Web Development: HTML, CSS

Others: Data Structures and Algorithms, Deep Learning, Machine Learning, ROS, OOP

POSITIONS OF RESPONSIBILITY

• Joint Secretary, Robotics Club, NIT Warangal

- Working on different projects such as **Swarm Drones, Waste Management Bot** represented by the club.

• Executive Member, Big Data Analytics and Consulting Cell, NIT Warangal

COURSES AND CERTIFICATIONS

•Software Engineering Virtual Experience program by **Goldman Sachs (cracking leaked password database)**

•Neural networks and Deep learning , Advanced learning algorithms, Supervised learning by Stanford

•Digital Twins by University of Michigan

COMPETITIONS AND EVENTS

• Eyantra by IIT Bombay

- Designed position control with localisation for three-omni-wheeled bot with understanding of **inverse kinematics**
- Simulated using **Gazebo Simulator** and **ROS** in Ubuntu for the Holonomic art bot(HOIa bot)

•ABURobocon'23 by Asia Pacific Broadcasting Union

- Came up with different **mechanisms** related to ring throw and stack pickup for **Elephant and Rabbit Robots**
- Got Selected to level-2 by securing a place in the top 15 teams, with a score of 95/100 in level-1

ACHIEVEMENTS

• Presented research paper that has been selected at the International Conference of Power Systems(ICPS'23).

• Got Selected to attend Indian Institute of Science(IISc) Bengaluru, Electrical Engineering Summer School'23