

# Padavala Jyothirmai

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## PROFILE SUMMARY

A passionate engineering student with a strong foundation in machine learning, embedded systems, and data science. Proficient in Python, C programming, and digital signal processing, with expertise in data structures, algorithms, and VLSI design and testing. Enthusiastic about leveraging AI and IoT for innovative solutions, particularly in speech recognition and real-time systems. Skilled in operating systems, microprocessors, digital systems, and networking basics. Recognized for adaptability, time management, leadership, teamwork, and communication skills, with a commitment to impactful projects through a blend of technical and analytical strengths.

## EDUCATION

<b>Bachelors of Technology in Electronics and Computer Engineering</b> Amrita Viswa Vidyapeetham, Kerala, India GPA: 9.16/10	2022-26
<b>Intermediate</b> FIITJEE International School, Vijayawada, Andhra Pradesh Score: 942/1000	2020-22
<b>Secondary School</b> Jubilation Public School, Andhra Pradesh Score: 576/600	2019-20

## PROJECTS UNDERTAKEN

<b>Virtual Mouse using Real Time Hand Gesture Recognition</b> ✓ <b>Problem:</b> Difficulty in controlling computer operations using traditional hardware. ✓ <b>Action:</b> Developed a virtual mouse using hand gesture recognition with real-time processing, leveraging OpenCV and machine learning models. ✓ <b>Result:</b> Enabled contactless and efficient control of computer interfaces.	2024
<b>Smart Cradle for Baby Monitoring</b> ✓ <b>Problem:</b> Need for enhanced baby monitoring and care. ✓ <b>Action:</b> Designed a smart cradle system with automated features for monitoring baby activity and ensuring comfort. ✓ <b>Result:</b> Improved parental convenience and ensured baby safety.	2024
<b>Alarm Clock using LPC2148</b> ✓ <b>Problem:</b> Need for an automated time-based alarm system. ✓ <b>Action:</b> Created an automatic alarm clock using LPC2148 microcontroller with Keil IDE and Proteus for simulation. ✓ <b>Result:</b> Delivered a functional, time-sensitive alarm solution.	2023
<b>Smart Blind Stick</b> ✓ <b>Problem:</b> Challenges faced by visually impaired individuals in navigating environments. ✓ <b>Action:</b> Developed a smart blind stick using Arduino, incorporating sensors for obstacle detection. ✓ <b>Result:</b> Enhanced mobility and safety for visually impaired users.	2022

## SKILLS

### Technical

- ✓ Embedded Systems
- ✓ Internet of Things (IoT)
- ✓ Machine Learning
- ✓ Data structures and algorithms
- ✓ Python Programming
- ✓ Analog and digital filter design
- ✓ Web design (HTML, CSS, JavaScript)

## Soft Skills

- ✓ Team Work
- ✓ Presentation Skills
- ✓ Communication skills
- ✓ Adaptability

## AREAS OF INTERESTS

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Machine Learning, Embedded Systems, Data Science, Signal Processing, Data - Driven Decision - Making, Speech Recognition, Internet of Things (IoT), Integrated Circuits, and Web Design.

## PUBLICATIONS:

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- ✓ Published a chapter on VR,AR in automobile industry - 2024
- ✓ Published a chapter on different speech recognition models - 2023

## COMMUNITY OUTREACH PROGRAMS/PROJECTS

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Cultural Heritage Awareness Program: Taught about leadership lessons from Indian roots. Enlightened students about various Indian leaders and their view about leadership. Encouraged students to develop leadership skills from young age. - 2024

## EXTRA - CURRICULAR

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- ✓ Participated in Inter Amrita Athletics Meet' 24 conducted in Amrita Viswa Vidyapeetham, Coimbatore
- ✓ Participated in State Level Roller Skating Championship - 2020 conducted by Roller Sports Academy, A.P., securing second place

## WORKSHOPS ATTENDED / WEBINARS ATTENDED OR CONDUCTED:

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- ✓ Attended Robotics and AI workshop conducted by Humanitarian Labs - 2024
- ✓ Attended IEEE Education Leadership Summit - 2024
- ✓ Attended Ham Radio workshop conducted during Vidyut - 2023

## INTERNSHIPS:

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- ✓ TechSaksham Internship—a joint CSR initiative by Microsoft and SAP. - 2025
  - Gained hands-on experience in machine learning techniques and applications.
  - Worked on data preprocessing, model training, and evaluation using Python and Scikit-learn.
  - Developed a classification model for predictive analytics.

## HOBBIES

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Swimming, Carnatic Music, Violin and Pencil Art