

DHARSHAN A

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PROFESSIONAL SUMMARY

- Electronics and Communication Engineering student with strong expertise in Machine Learning and proficiency in C++ and Python. Experienced in developing AI-powered predictive models and optimizing code performance. Skilled in deep learning frameworks, full-stack development using Streamlit, and API integration for end-to-end ML solutions. seeking opportunities in AI/ML or software development roles.

EDUCATION

Siddaganga Institute of Technology, Tumkur

2022 - 2026

- Bachelor of Engineering in Electronics and Communications
- CGPA : 8.17

Nisarga Pre-University College, Bangalore

Apr 2022

- Secondary Education
- Percentage : 91.5%

EXPERIENCE

Research Intern - Samsung PRISM Program

Oct 2025 - Present

- Performed data preprocessing and classification of hearing-impaired speech of 4000+ samples based on intelligibility levels (high, mid, low), analyzing pronunciation and articulation errors across multiple speakers.
- Developing a GAN-based models to enhance speech clarity by converting impaired speech to normal, leveraging deep learning and signal processing techniques for performance evaluation.

PROJECTS

Night Patrol Robot

- Developed an autonomous night-patrol robot with line-following, obstacle detection, and facial recognition for intruder identification. Integrated Raspberry Pi with a Telegram bot for real-time image alerts to security personnel.
- Tech Stack:** Raspberry Pi, Arduino Uno, OpenCV, Python, Arduino IDE, Telegram Bot API, IR/PIR/Ultrasonic Sensors, DC/Servo Motors.

Automated Irrigation System

- Developed an AI- and IoT-based intelligent drip irrigation system using ESP32 that automates watering and fertilizer control based on real-time soil and weather data. Integrated an LSTM model for 98% accurate crop prediction and a Telegram bot for remote monitoring, scheduling, and safety alerts via ThingSpeak Cloud.
- Tech Stack:** ESP32, NPK & DHT22 sensors, Arduino IDE, Python, TensorFlow, Streamlit, ThingSpeak Cloud, Telegram Bot API.

SKILLS

- Programming Languages :** C++, Python
- AI/ML :** Machine Learning, Deep Learning, Natural Language Processing, Retrieval-Augmented Generation
- Web Development :** HTML, CSS, Streamlit
- CS Fundamentals :** Database Management, OOPS, Data structures and Algorithms
- Tools and Technologies :** Git, Github, Docker, Visual Studio Code, Pycharm, Jupyter Notebook, Colab
- Soft Skills :** Time Management, Communication, Team Work, Adaptability

CERTIFICATIONS

[Python Essentials 1](#)

[Python Essentials 2](#)

[C++ Programming](#)

[Data Structures and Algorithms in C++](#)

[Machine Learning and Deep Learning](#)

ROLE OF RESPONSIBILITY

Secretary of IEEE Student Branch - SIT

2024 - 2025

- Coordinated in organizing and managing **IdEEEas**, a National level technical symposium with 3000+ participants and **WIE CODE**, a 12-hour National Level Hackathon.
- Collaborated with the team to boost community engagement and networking.