R Ehthikash

+91 9025995827 ehthikash13@gmail.com www.linkedin.com/in/ehthikash-r-87b98a24b/

Education

Vellore Institute of Technology, Vellore **September 2021 - May 2025**
BTECH - Electronics and Communication Engineering *CGPA - 8.68*

Kendriya Vidyalaya **2020**
CBSE XII: Percentage - 87.8%

Kendriya Vidyalaya **2018**
CBSE X: Percentage - 84%

Experience

Intern – ITI Limited, Bangalore — PCB Designing, Data Centre, 4G Labs **Sep 2023 - Oct 2023**

- Executed electronic component and system testing using industry-standard protocols and diagnostic tools.
- Contributed to the design and prototyping of circuit boards and microcontroller-based systems.
- Collaborated with engineering teams to troubleshoot technical issues and streamline system performance.
- Operated testing equipment and design software, building hands-on expertise in real-time lab environments.

Event Organizing Committee Member – Rivera (International College Fest) **Dec 2021 - Feb 2022**

- Coordinated event logistics, including venue preparation, technical setup, and vendor management.
- Supervised recruitment and training of volunteers for key roles such as registration, stage management, and crowd control..
- Spearheaded on-ground execution during the event, resolving logistical issues and ensuring smooth program flow.

Projects

Arduino-Based CAN Protocol for Vehicle Control — Embedded Systemss | *ML, DL* **Jan - Apr 2025**

- Built a CAN-based vehicle safety system with features like collision avoidance, speed monitoring, and lane detection
- Integrated sensors and modules using Arduino (ATmega328) and MCP2515 CAN controllers for real-time communication.
- Ensured reliable data transfer at 125 kbps using ISO 11898-compliant protocols and efficient message scheduling..
- Programmed in Embedded C via Arduino IDE, enhancing system performance and modular scalability.

Failure Prediction in Industrial Machinery Using ML Algorithms | *ML, DL* **Aug - Dec 2024**

- Collaborated within a 3-member team on an Failure Prediction in Industrial Machinery project, Developed 6 machine learning-based approach to detect failure in industrial machinery, crucial for reducing losses which are caused by unforeseen repairs.
- Developed a machine learning-based predictive maintenance model, achieving 97.9 percent accuracy using Gradient Boosting and 95.5 percent with KNN on imbalanced datasets processed with SMOTE. Enhanced reliability by leveraging hyperparameter tuning and advanced evaluation metrics. This project enhanced my proficiency in data preprocessing, feature selection,hyperparameter tuning and model evaluation.

Honey Adulteration Detection Approach Using Machine Learning Algorithms | *ML, DL* **Oct - Dec 2023**

- Collaborated within a 5-member team on an Honey Adulteration detection project, Developed a machine learning-based approach to detect adulteration in honey, crucial for ensuring product quality and consumer safety.
- Utilized supervised learning algorithms to analyze spectral data and identify adulterants. Achieved **92%** accuracy in distinguishing pure honey from adulterated samples. This project enhanced my proficiency in data preprocessing, feature selection, and model evaluation within the context of food quality assurance.

Design and Implementation of a IoT based Intelligent traffic Management System | **Aug - Nov 2022**

- Collaborated within a two-member team to Design and implement a Intelligent traffic Management System aimed at reducing traffic in major cities.
- Integrated infrared sensors with microcontroller-based control units to control the flow of the traffic

Certificates

- ITI Limited Internship
- Courses on python
- Deeplearning

Profile Links

- Github (Link)
- Leetcode (Link)

Technical Skills

Languages: Java, Python ,C++,C(Intermediate),R
Data Science: Machine Learning, Deep Learning
Tools: Multisim, MatLab, LTspice, Packet tracer, Cadence, Optisystem, Ansys, Keil, Netsim

Languages

- English
- Tamil
- Hindi
- Telugu
- Spanish