Varsha .E

Electronics and Communication Engineering student with hands-on experience in software development, system design, and network simulation. Skilled in Python, Java, and web technologies. Strong in problem-solving, team collaboration, and Agile-based workflows with an eagerness to contribute to real-world software development projects.

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LinkedIn: [LinkedIn Profile]

Skilrack: [Skillrack Profile]

Education

Bachelor of Engineering in Electronics and Communication Engineering

Velammal Institue of Technology, Ponneri.

2022 - 2026   CGPA: 8.85

Higher Secondary Education

Sri Vijay Vidyalaya, Dharmapuri.

2020 - 2022   Percentage: 85%

Secondary Education

Carmel Matriculation School, Dharmapuri.

2019 - 2020   Percentage: 99.4%

Technical Skills

Languages:
- Java
- C
- Python

Web Technologies:
- HTML
- CSS
- JavaScript

Others:
- Data Structures & Algorithms
- SQL basics

Tools & Platforms:
- Git
- VS code
- NS3
- Tableau
- LabVIEW
- MATLAB

Languages Known

- Telugu
- Tamil
- English

Projects

- **mmWave Simulation using NS3 :** Simulated a 5G mmWave communication network using the NS3 simulator to evaluate performance metrics under varied network conditions. Designed and analyzed a dynamic network topology with multiple mobile nodes and real-time data flow. Visualized packet transmission and system behavior using NetAnim. Achieved over 97% transmission accuracy with latency <1.8 ms. Extracted key performance indicators like throughput, delay, and packet delivery ratio using simulation logs and graphical analysis. Applied System design thinking and analytical skills through the simulation process 🔗 View Project

- **Animal Detection System with YOLO & Raspberry Pi:** Developed and deployed a real-time wildlife detection system using YOLOv3-tiny, Raspberry Pi, Pi Camera, and PIR sensors to monitor animal crossings in rural areas. Achieved 83.7% accuracy for detecting multiple species under varied conditions. Demonstrated skills in Python, image processing, and problem-solving. Explored potential for future integration with smart traffic systems to enhance road safety. Collaborated on team-based feedback and system improvements.

- **Deloitte Technology Job Simulation:** Completed a virtual internship simulation with Deloitte Australia, involving tasks in software development, cybersecurity, and data analysis. Worked through real-world scenarios using Agile methodology and gained exposure to code review practices and cross-functional collaboration, enhancing my ability to solve problems in dynamic team environments. 🔗 View Certificate

Achievements & Certifications

- **1st Place** – Table Tennis & Throwball, 14th Annual Sports Day, Velammal Institute of Technology.
- **2nd Place** – Basketball & Volleyball, 14th Annual Sports Day, Velammal Institute of Technology.
- **C Programming Certification –** Skill rack
- **Java Programming Certification** – Skill rack
- **UI/UX for Beginners** – Great Learning
- **Responsive Web Design Certification** – FreeCodeCamp

Hackathons & Tech Events

- **Paper Presentation** – "Hydrogen Superhighway", SIMATS Engineering (DIODEZ 2024)
- **Technical Quiz & Connections** – SIMATS Engineering (DIODEZ 2024)
- **Hardware Hackathon 2.0** – Wildlife Movement Detection using PIR Sensors and Pi Cameras at Prathyusha Engineering College
- **Smart India Hackathon 2024** – Developed GPR-based body detection system for CSSR operations in disaster zones

Workshop & Volunteering

- Participated in **"NS3 Two-Day Workshop"** – Velammal Institute of Technology
- Attended Webinar on **"Semiconductor Research & Sustainable Disaster Management"** – edu-Care Taiwan
- Contributed as a Volunteer at **"World Robot Olympiad India 2024 – Regional Championship"**, Chennai