Harshitha M

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Summary

Motivated engineering student with strong foundations in software development, IoT, and machine learning, with research experience and a paper accepted at AIDE 2026, and proven leadership as Vice-Chair of IEEE WIE.

Education

RV University | Bachelors of Technology (Hons.) in Computer Science — 2023 - 2027
Major – AI and ML , Minor - Innovation, Entrepreneurship, Product Development — GPA - 8.03

Vidya Mandir Independent PU College | Pre-University in PCMB | 89% — 2021 - 2023

B P Indian Public School | School 10th grade, ICSE | 89% — 2009 - 2021

Experience

IEEE Women in Engineering (WIE), RV University — April 2025 - Present
Vice - Chair
- Led IEEE technical programs focused on skill development, mentorship, and high student engagement.
- Coordinated cross-functional teams to foster collaboration and inclusive engineering leadership.

Summer Internship, RV University — June 2025 - July 2025
Student Intern | AI-Based Generative Design of Launch Vehicle Payload Fairing
- Optimized payload fairing designs using NSGA-II to minimize mass and cost under safety constraints.
- Analyzed NASA-based synthetic datasets to derive structurally efficient, Pareto-optimal aerospace designs.

Academic Projects

- **Astronomad (Mars Rover Prototype)** | *Arduino, C, Python*
  Built a sensor-driven Mars rover prototype to analyze terrain and environmental data in real time.
- **Stock Market Analysis & Prediction Platform (Agile & DevOps)** | *React, Flask, Python, APIs*
  Built a full-stack stock market platform with real-time data and CI/CD automation..
- **IoT-Based Pothole Detection System** | *IoT, Arduino, Python*
  Built an IoT-based pothole detection system with GPS tracking. Paper accepted at AIDE 2026.
- **Customer Churn Prediction** | *Python, Machine Learning*
  Built and compared ML classification models (DT, RF, XGBoost) on the Telco dataset with SMOTE.
- **Pre-Crop & Post-Harvest Smart Agriculture System** | *IoT, Sensors, C*
  Developed an IoT-based solution for soil monitoring, automated irrigation, and intelligent grain storage management.
- **Smart Traffic Light System** | *Cisco Packet Tracer, JavaScript*
  Simulated an IoT-based traffic management system with pedestrian detection and network automation.
- **SocioDrift – Brand Jingle Generator** | *HTML, CSS, APIs*
  Built a web application that generates customized brand jingles from user inputs to support automated digital marketing.
- **AI Prompt Generator** | *Flask, Python, LLM APIs*
  Built a prompt-based AI web application.

Skills

- **Languages:** Python, C, JavaScript
- **Web & Backend:** React.js, Flask, HTML, CSS, REST APIs
- **Machine Learning:** Decision Trees, Random Forest, XGBoost, SMOTE
- **Quantum Computing:** Quantum Algorithms (Basics), Qiskit, Quantum Concepts
- **IoT & Embedded:** Arduino, Sensors, GPS, IoT Systems
- **DevOps Tools:** Git, GitHub Actions, CI/CD, Agile, Azure
- **Networking:** Cisco Packet Tracer, Routing, DHCP

Additional

- Finalist in 2 national hackathons (HacXerve, Hackfinity), developing prototypes for smart agriculture & fintech.
- Directed the planning and execution of hackathons and technical workshops as Vice-Chair, IEEE WIE.
- Developed SEAL, a board game awarded Best Game for creativity and gameplay design.
- Certified by NPTEL in Design & Implementation of Human Interface