

# Vamsidhar Muppagowni

[vamsimuppagowni@gmail.com](mailto:vamsimuppagowni@gmail.com) | [GitHub](#) | [LinkedIn](#) | [Portfolio](#)

## SUMMARY

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Motivated B.Tech Computer Science student with hands-on experience in software development and embedded systems. Enjoys building practical projects, learning new technologies, and improving problem-solving skills through real-world applications.

## EDUCATION

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<b>AMRITA VISHWA VIDYAPEETHAM, Coimbatore</b> B.Tech in Computer Science & Engineering	2023 – Present <b>CGPA: 6.82</b>
<b>NARAYANA JR COLLEGE, Telangana</b> Intermediate (MPC)	2021 – 2023 <b>91%</b>
<b>VISWABHARATHI WISEWOODS, Andhra Pradesh</b> Class 10 — CBSE	2020 – 2021 <b>86%</b>

## PROJECTS

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### Edge-Based V2X Protocol | [GitHub Link](#)

- Designed emergency traffic-response optimization using Fuzzy Logic and Genetic Algorithms.
- Simulated and validated rerouting strategies on SUMO for smart city infrastructure.
- Focused on low-latency edge-based V2X communication handling.
- Tech Stack:** SUMO, Python, Genetic Algorithms

### ShopsBuzz – E-Commerce Platform | [GitHub Link](#)

- Engineered full-stack e-commerce solution with secure authentication and order lifecycle management.
- Designed MySQL schema for product catalog, sessions, and transaction data.
- Tech Stack:** JavaScript, MySQL, HTML/CSS, Express, Node.js

### STM32F4 Soil & Water Monitoring System | [GitHub Link](#)

- Developed an automated irrigation system using STM32F4 with ADC-based soil and water-level sensing.
- Implemented threshold-driven control logic with GPIO-relay outputs for irrigation.
- Integrated a 16×2 I2C LCD (PCF8574) with UART fallback for robust diagnostics.
- Added error-handling routines for sensor and LCD failures to ensure reliable field operation.
- Built modular firmware architecture using STM32 HAL/CMSIS.
- Tech Stack:** Embedded C, Keil  $\mu$ Vision(STM32F4CCUx)

## SKILLS

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**Languages:** Python, Java, C, Haskell, SQL

**Web Development:** React.js, Node.js, Express.js, Flask, HTML, CSS, JavaScript

**Data Science & AI:** Machine Learning, Computational Intelligence, Pandas, Scikit-Learn

**Tools & Platforms:** Git/GitHub, Streamlit, Webots, SUMO, Keil  $\mu$ Vision, VS Code, Wireshark

## CERTIFICATIONS / EXTRA-CURRICULARS

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- NPTEL Elite Certification — Data Science for Engineers (IIT Madras, 2025):** [View Certificate](#)
- Adobe Hackathon 2025:** [View Certificate](#)
- Complete Python Developer (Udemy):** [View Certificate](#)