

# Harsha Vardhan Polamarasetty

## Software Development Engineer

Linkedin: [linkedin.com/in/harshapolamarasetty/](https://www.linkedin.com/in/harshapolamarasetty/)

Github: [github.com/Harsha0431](https://github.com/Harsha0431)

Email: [harshapolamarasetty6174@gmail.com](mailto:harshapolamarasetty6174@gmail.com)

Mobile: +91-9390226752

## PROFESSIONAL SUMMARY

Curious and driven Software Development Engineer passionate about **building innovative applications** that solve **real-world problems**. Experienced in building **full-stack and AI-driven solutions**, with **interest in mobile development** using React Native, while **exploring open-source tools** like Directus CMS and Appwrite to streamline backend workflows. Skilled in designing **clean architecture, writing maintainable code, and leading projects with focus on quality, scalability, and collaboration**. Always eager to **learn**, and grow in environments that value **trust, leadership, and technical excellence**.

## EDUCATION

- KL University** Vijayawada, India  
*Bachelor of Computer Science; GPA: 4.51 (9.5/10.0)* Aug 2022 - Jul 2026

## EXPERIENCE

- Realfy Oasis** Sep 2024 - Nov 2024  
*Node.js Developer Intern*
  - Designed and implemented a **scalable backend** using Node.js, Firestore, and Directus CMS, **offloading content management to reduce backend load** and improve performance with real-time data sync and efficient request handling.
  - Built **AI-powered fitness and health tracking** features that analyze user inputs to generate **personalized diet plans and workout suggestions**, significantly enhancing user engagement, retention, and overall application utility.
  - Collaborated cross-functionally with UI/UX designers and developers in an Agile team to **plan, develop, and deploy a robust backend infrastructure** aligned with product vision, business goals, and evolving **user-centric requirements**.

## PROJECTS

- User-Adaptive Handwritten Text Recognition** Apr 2025 - Present  
*Python, TrOCR (Hugging Face), PyTorch, Gradio*
  - Developed an **experimental OCR system** that **dynamically adapts to individual handwriting styles**, significantly **improving recognition accuracy** on real-world handwritten documents across diverse formats and layouts.
  - Fine-tuned TrOCR on 5+ diverse handwriting datasets and built a **feedback loop to personalize** predictions using user samples and corrections; planning **handwriting transformation** using GANs and **document restoration** via LLMs.
- AI News Scraper & Summarizer with TTS** Mar 2025 - Mar 2025  
*Python, Hugging faces, BERT, Gemini API, Flask, Gradio*
  - Automated news scraping from Google News, performing cleaning and preprocessing before **summarizing articles with BART-Large-CNN**, achieving 90%+ compression accuracy using **chunking and sliding window techniques**.
  - Enforced **sentiment analysis and comparative trend detection** among all scraped news articles across 10+ sources per query using **Gemini API**, featuring **insights and real-time text-to-speech support** in Hindi for broader accessibility
- ShareWithMe – Anonymous File Sharing Application** Jul 2023 - Sep 2023  
*React.js, Node.js, Express.js, MongoDB, Firebase*
  - Engineered a **full-stack web application** for secure, anonymous, and **completely free file sharing**—no login required—**prioritizing user privacy**, simplicity, and ease of access through memorable file IDs for quick retrieval.
  - Designed a responsive UI using React, enabling one-click uploads with **optional password protection**. Used **MongoDB and Firebase Storage** for fast, secure retrieval, with a **streamlined architecture** enabling file access in under 3-5 seconds.

## SKILLS

- Programming & Paradigms:** Java, Python, JavaScript/TypeScript, OOP, Event-driven Architecture
- Full-Stack Development:** React.js, Vue.js, React Native, Express.js, Spring Boot, Flask, Django, MySQL, MongoDB
- Tools & Platforms:** Git, Docker, Postman, Appwrite, Directus CMS
- Machine Learning & Open Source:** PyTorch, Hugging Face, scikit-learn, Transformers, OCR (TrOCR), Gradio
- Core Engineering Traits:** Problem Solving, Clean Code, System Design Thinking, Leadership, Collaboration

## CERTIFICATIONS

- Red Hat Certified Enterprise Application Developer
- Salesforce Certified AI Associate
- Oracle Cloud Infrastructure 2024 Generative AI Certified Professional

## ACTIVE PROJECTS & OTHER INTERESTS

- Active Projects:** Building Daily Shelf, a **personal habit tracking app** using **React Native and AppWrite** (open-source BaaS). Inspired by *Atomic Habits*, it **helps users build and maintain habits by tracking daily activities**. Designed primarily for personal use but open to anyone seeking simple habit management.
- Other Interests:** Passionate about exploring open-source projects, reading diverse books, learning new technologies, and staying active through sports.