

PAVAN KUMAR KETHA

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★ Visakhapatnam, Andhra Pradesh

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in @pavan_kumar_ketha

CAREER OBJECTIVE

Motivated developer seeking an opportunity to contribute to a dynamic team, building efficient applications and grow professionally in a collaborative environment.

EDUCATION

ABC ID - 589857167785

B. TECH – Computer Science and Engineering
Dadi Institute of Engineering & Technology | Anakapalle

Pursuing
Percentage – 72.3%
(Till – III-II)

Intermediate – MPC – TS Board
Vishwa Chaitanya Junior College | Hyderabad

2021-2023
Percentage – 83.9%

SSC – AP Board
Bhashyam Educational Institute | Visakhapatnam

2021
Percentage – 100 %

TECHNICAL SKILLS

- **Programming Languages:** Python, Java, Data Structures
- **Libraries & Frameworks:** HTML, CSS, JavaScript
- **Tools & Platforms:** VS Code, GitHub, Claude Code, Codex, Cursor
- **AI Engineering:** RAG, MCP, Computer Vision
- **Database:** SQL, Azure SQL, Azure Blob

PROJECTS

Disaster Insight Hub Assistant

Description: Flask-based Retrieval-Augmented Generation (RAG) experience that classifies crisis-related text, fetches safety playbooks, and drafts natural responses through Ollama Cloud (gpt-oss:120b-cloud). The Random Forest classifier (multi-output) still handles crisis detection, while TF-IDF retrieval grounds the assistant in your curated Excel knowledge base.

Tools Used: Python, React, Tailwind CSS, FastAPI, MongoDB, Ollama, LangChain

Key Learning and Future Scope: This project enhanced our skills in full-stack development, AI integration, and cloud deployment, with future scope for predictive AI, IoT, GIS mapping, and smarter real-time disaster management.

Repository Link: <https://github.com/Pavan-5905/Disaster-Insight-Hub-Assistant>

Pothole Detection Assistant

Description: Developed an AI-powered pothole detection system that identifies potholes from road images or video streams using computer vision and deep learning techniques. The application

provides real-time detection with an intuitive user interface, enabling efficient road monitoring and assisting authorities in prioritizing maintenance to improve road safety.

Tools Used: Python, YOLO, OpenCV, NumPy

Key Learning and Future Scope: Developing this project strengthened our skills in computer vision, deep learning, and real-time object detection, with future scope including GPS mapping, severity analysis, and smart road maintenance integration.

Repository Link: <https://github.com/Pavan-5905/Pothole-Detection-Assistant>

Smart Weather Monitoring System (MINI PROJECT)

Description: Developed an offline smart weather monitoring system using Arduino ESP8266 and environmental sensors to provide real-time temperature, humidity, and rainfall data for rural farmers without internet connectivity.

Technologies Used: Arduino ESP8266, Embedded C, DHT11 Sensor, Rain Sensor, LDR, LCD Display (I2C)

Key Learning and Future Scope: Learned embedded systems and real-time sensor data processing using Arduino ESP8266, with future scope to integrate AI/ML models for predictive weather forecasting.

Repository Link: <https://github.com/Pavan-5905/Smart-Weather-Monitoring-System>

CERTIFICATIONS

Python – *Elite+Silver*

NPTEL

Nov, 2025

Front – End Web Development

eDX | IBM

Jul, 2024

Adobe Creative Cloud

Udemy

Jan, 2024

MS Office - .ppt, .docx, .xls

Corporate Finance Institute(CFI) | Udemy

Jul, 2021

WORKSHOPS & INDUSTRIAL VISITS

Git & GitHub – Jul, 2026 (Trainer)

Key Learnings:

- Basics of Git
- Git Architecture
- Remote Repository Hosting Services
- Working with branches

Visit To Naval Dockyard – Jun, 2026

Key Learnings:

- What is Hydrography
- Importance of Hydrography
- Mapping of Coastal Areas
- Inside a Survey and War Ships

Quantum Computing – Feb, 2026

Key Learnings:

- What is Quantum Computing?
- Basics of Quantum Computing
- Research in Quantum Computing

Parallel Programming Workshop – Feb, 2024

Key Learnings:

- Parallel Programming
- Super Computing

ACHIEVEMENTS & LEADERSHIP

- Secured NPTEL Elite + Silver in Python in November, 2026
- STUDENT CHAIR of the CSI Student Branch – DIET from 2025 - 2026
- DVC (Diet Volunteering Club) for volunteering services in the campus level programs
- Volunteered at CII – Partnership Summit held at Visakhapatnam in April, 2025

COMMUNITY SERVICES

Organic Farming – April & May, 2025

Conducted an 8-week organic farming awareness camp, teaching sustainable and chemical-free practices.

- Bio-Fertilizers
- Vermi Compost
- Natural Manures
- Crop Rotation Techniques
- Water harvesting Methods

CODING PROFILES

https://www.hackerrank.com/k_pavan_5905

https://leetcode.com/Pavan_917

https://www.geeksforgeeks.org/user/pavan_917

-HackerRank

-LeetCode

-GeeksforGeeks

SOCIAL LINKS

https://twitter.com/pavan_917

<https://github.com/Pavan-5905>

www.linkedin.com/in/pavan-kumar-ketha

<https://www.instagram.com/thepavankumar.k/>

-X(Twitter)

-GitHub

-LinkedIn

-Instagram

Date: 13th July, 2026

Place: Visakhapatnam, Andhra Pradesh

Signature
(Pavan Kumar Ketha)