VARSHITH GADDAM

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GitHub: github.com/VarshithGaddam LeetCode: leetcode.com/u/Varsh800/

PROFILE

Al & Data Science student passionate about leveraging cutting-edge technologies to solve real-world challenges. Strong foundation in programming, machine learning, and data science, with expertise in Al-driven applications. Proven problem-solving skills with **350+ LeetCode problems solved** and a **270+ day consistency streak**. Seeking opportunities to develop Al-powered solutions and optimize business performance. Eager to apply Al expertise in challenging environments to drive innovation.

EDUCATION

B.Tech in Artificial Intelligence & Machine Learning

Vignan Institute of Technology and Science, Hyderabad | 2023 - Present

Current CGPA: 8.3

Diploma in Mechanical Engineering

Government Polytechnic College, Kothagudem | 2020 – 2023

Overall CGPA: 9.83

PROJECTS

LMS Student Gamification Portal (01/2024)

Developed an **AI-driven interactive Student LMS Gamification Portal** to enhance student engagement through **game-based mechanics** like leaderboards, badges, and challenges. Built using **FastAPI, React, PostgreSQL, Celery, and WebSockets** to ensure real-time interactions and adaptive learning recommendations.

YOLOv8 Sheep Detection & Counting (06/2024)

Designed a real-time **sheep detection and counting system** using **YOLOv8, OpenCV, and DeepSORT** for livestock tracking. The system provides **automated reporting** and improves efficiency by reducing manual counting efforts. Deployed via **FastAPI and React**.

SquatPoseNet: Al-Powered Squat Form Analysis (02/2025)

Developed an **AI-based fitness assistant** using **Graph Neural Networks (GNN) and TensorFlow MoveNet** to analyze and classify squat movements. **Key Features:** Real-time feedback, ONNX-based deployment, and injury prevention insights.

Generating Images using GANs (01/2025)

Implemented a **GAN-based Image Generation System** using **PyTorch, TensorFlow, and OpenCV**. Trained models with **DCGAN, StyleGAN, and CycleGAN** to generate high-resolution synthetic images with improved stability.

Machine Learning Projects:

- Household Energy Consumption Analysis Optimized energy usage through predictive analysis.
- Data Leakage Prevention Built a model to detect and prevent sensitive data leaks.
- Learning Disability Detection System Al-based identification of learning disabilities.
- Fuel Efficiency Analysis Explored the relationship between speed and fuel consumption.
- Bird Flu Prediction Developed a forecasting model for potential outbreaks.
- **Nipah Virus Prediction** Designed an early warning system for disease outbreaks.

TECHNICAL SKILLS

Programming: Python (Proficient), R, Java (Moderate), C, C++

Data Structures and Algorithms using Python

Problem-Solving & Mathematics: Strong debugging skills, Linear Algebra, Statistics, Probability, Calculus

Databases: Proficient in DBMS, Supabase

Artificial Intelligence & Machine Learning:

- Machine Learning | Deep Learning (Keras, TensorFlow)
- Regression Analysis | Classification & Clustering (Scikit-Learn, Hierarchical Clustering)
- Natural Language Processing | Artificial Neural Networks
- SciPy | Prompt Engineering | Generative AI | Computer Vision
- PyTorch | TensorFlow
- Chatbots

Web Development & Frontend Technologies:

React.js, Next.js, JavaScript, TypeScript, Tailwind CSS, Redux

Software Development & Tools:

- Python for Machine Learning, Software Development
- Goldman Sachs Software Engineering Job Simulation

AI & Ethics:

- Career Essentials in Generative AI (Microsoft & LinkedIn)
- Computer Ethics

CERTIFICATIONS & TRAINING

- Python with Machine Learning Coursera (July 2024)
- Career Essentials in Generative AI Microsoft & LinkedIn (Feb 2024)
- **Professional AI Engineer** Coursera (Dec 2024)
- **Python Certification** Moratuwa University, Sri Lanka (Aug 2024)
- **Software Engineering Job Simulation** JPMorgan via Forage (Oct 2024)
- Associate Member ACM Student Chapter (Jan 2025)

ACHIEVEMENTS

- **1x Hackathon Winner** Developed an Al-driven Eco Environment clean(Dec 2024)
- **LeetCode:** 350+ problems solved, 270+ day streak
- AI/ML Open-Source Contributions Active contributor on GitHub