Purelli Vignesh Reddy

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Linkedin | Github



Career Objective

To obtain a Software Engineer role where I can apply my skills in DSA, web development, IoT, and machine learning to build innovative solutions while growing through collaboration and challenging projects

Education

VNR VJIET Hyderabad

B. Tech in Computer Science and Engineering with specialization in Internet CGPA: 8.69/10 Of Things 2022-2026

Narayana Junior College, Madhapur
 Telangana State Board of Intermediate Education (TSBIE), Kondapur
 2020-2022

DR KKR'S Gowtham Concept HS- ECIL
 The Board of Secondary Education (SSC), Telangana
 2020

Work Experience

DRDO - Ministry of Defense, Gov of India - DRDL
Internship

Feb 2025 – MAR 2025 Hyderabad

- Assisted in **Deep Learning-based Object Detection for Aerial Surveillance**, exploring **real-time object tracking** with computer vision models.
- Gained hands-on exposure to dataset preprocessing, model training (YOLO, Faster R-CNN), and performance evaluation for aerial imagery.
- Observed and studied AI applications in defense, particularly in small object detection and high-altitude image analysis.

Projects

• **Project Name**: Wearable Gesture-Based Control Using ESP32

Description: Developed a wearable **gesture control device** using an **ESP32** and **MPU6050** accelerometer to recognize hand movements with Edge Impulse machine learning models. Implemented **WIFI communication** to trigger actions on a laptop, enabling hands-free control for tasks like media playback and window navigation. Overcame challenges in real-time gesture classification and wireless communication.

Project Name: Tree enumeration

Description: This project aims to automate tree enumeration in aerial images by employing pre-processing techniques for feature enhancement and OpenCV algorithms for initial tree detection. It then utilizes a pre-trained deep learning model, such as DeepForest, for accurate tree counting and classification, streamlining the process of tree population analysis in large-scale aerial imagery.

Project Name: Full-Stack Blog Application
 Description: Developed a fully functional full-stack blogging applications with ability to register, login, post, edit ,view and delete articles.

Technical Skills

- Programming Languages: C, Python, Java ,C++,R
- Deep Learning: TensorFlow
- Web Development: HTML, CSS, Bootstrap, JavaScript, Node.js, Express.js.
- Database: SQL, MongoDB.
- Other Skills: Data Structures, Algorithms, Problem Solving.

Achievements

- 5 stars in problem solving in HackerRank.
- Got 1st place in ideathon conducted by Krithomedh club in VNR VJIET.
- Solved 500+ problems in various coding platforms.
- Achieved 7th position out of 700 teams in Krithomedh coding contest at VNR VJIET.
- Participated in Kavach National-Level Hackathon.
- · Participated in Smart India Hackathon.

Extra-Curricular Activities

- Played cricket as an Extra Academic Activity ,VNR VJIET.
- Interest in playing chess and participated and won in school-level competitions

Acknowledgement

I acknowledge that all information provided here is true to the best of my knowledge and belief.

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