

Subhodeep Pal

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Skills

Languages: C/C++, Java, Python, JavaScript, SQL

Technologies & Tools: GCP, AWS, EC2, DynamoDB, S3, Spring, ReactJS, NextJS, YOLO, OpenCV, ROS

Work Experience

JSW Steel, Vijayanagar

August 2024 - Present

GET, Logistics

- I have implemented automation to replace manual data entry for vacant lines, transforming it into a fully automated system that displays the status of vacant lines and other relevant information as a result the chance of miscommunication decreased and safety is also maintained.
- I am currently developing a real-time computer vision system to count wagons entering through the gate, identify if they are covered with a tarpaulin, and recognize the wagon numbers displayed on each wagon. This system has significantly reduced manual entry efforts, minimized placement time, and eliminated conflicts in wagon number recording during the release process.
- Python, OpenCV, YOLOv8, Tesseract OCR, ResNet

IISC, Bangalore

April 2023 - July 2023

Internship

- I have done Internship at IISC Bangalore under Professor Suresh Sundaram in AIRL lab and worked on intelligent swarm action and learned about PX4 framework, ROS and realtime image-processing to count trees and other objects.

Education

National Institute of Technology, Durgapur

December 2020 - May 2024

Bachelor of Technology in Mechanical Engineering

CGPA: 8.31/10

Relevant Coursework: Discrete Mathematics, Computer Networking, Electrical Instrumentation, Control Systems, Biomedical Instrumentation

Project Work

- **Real-Time Face Recognition System with YOLO and OpenCV:** Implemented a face recognition system using YOLO for real-time face detection and OpenCV for preprocessing and tracking. The project ensures high accuracy and performance in live video streams, demonstrating advanced computer vision capabilities
- **Real-Time Weather App Built with React and Live Data Integration:** Developed a React-based weather app that fetches real-time weather data using APIs, featuring location-based updates and a responsive design for enhanced user experience.
- **Advanced UAV Development and Automation: Building X-Quadcopter, H-Copter, and Hexacopter with AI and Image Processing Integration (2023):** Capacity building for human resource development in Unmanned Aircraft System (Drone and related Technology) under Professor Dr. Deepak Kumar working on X-Quadcopter and H-copter and hexacopter, Mini drone by Nano 33 BLE Sense and f7 flight controller and working on Raspberry-pi integration on UAVs to make automation and for image processing and machine learning on different drone parameters.

Awards and Certificates

- **Founder and Technical Head of AlleronX** Drone Club of NIT, Durgapur
- Create ML Models with BigQuery ML GCP
- Integrate with Machine Learning APIs GCP