

Tejaswee Kumar Singh

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EDUCATION

IIT Bhubaneshwar

Bachelor of Technology in Computer Science and Engineering Post 4th Semester (CGPA: 8.62/10)

Odisha, India

2022 - 2026

ODM Public School

12th Board 96 %

Bhubaneswar, Odisha, India

2020 - 2022

EXPERIENCE

Intel Unnati Industrial Training Program

May 2024 - June 2024

- Developed a project that solved real world problems like automatic EDA, pattern and Insights generation from structured data fastening process of data analysis, under the guidance of industry experts from intel.
- Gained hands on experience in **AI, LLM, AWS and Machine Learning** from industry experts.

PROJECTS

Insights Masters

A web app to help in the task of data analysis

- Developed a web app that incorporated automatic exploratory data analysis and preprocessing, delivering visual charts and generating actionable insights from datasets exceeding **6 million** records while collaborating with Intel industry experts..
- Engineered a robust QA bot capable of interpreting complex inquiries from large datasets while producing insightful visual representations, powered by **Gemini LLM and Langchain library**.
- Deployed backend functionality using AWS services that reduced insights generation time by **50%** making it secure and reliable for large datasets.

Under-Water Image Enhancement

A modified version of famous U-net architecture with DepthWise Convolutional layer and CBAM layers.

- Pre-processed distorted underwater images to improve visibility and clarity by **39.57 %** using WB balancing, unsharp masking and CLAHE .
- Modified U-Net Architecture by using DepthWise Convolutional Layers and CBAM layers. These modification reduced the primary model size by **70%** and trained with **10,000** images dataset.

Football player performance analysis

A fine tuned YOLO model for real time football player performance analysis

- Implemented transfer learning from a state of art YOLO object detection model and fine-tuned it on custom dataset of **600** images.
- Extracted key metrics like player's speed, total distance and successful passes with real time tracking of players and football.

TECHNICAL - SKILL

- Programming Languages:** C, C++, Go Lang, Python, JavaScript, Typescript, HTML5
- Libraries & Frameworks:** TensorFlow, Nodejs, Reactjs, Langchain
- Tools & Technologies:** Git, MLFlow, Docker, AWS, Apache, Kafka
- Databases:** MongoDB, PostgreSQL

HONORS

Finalist in International Bit N Build Hackathon

2024

Fr. Conceicao Rodrigues College of Engineering

Volunteering

AI-ML Associate

GDSC, IIT Bhubaneswar

2023 - 2024