# ATHRVA KULKARNI

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#### **EDUCATION**

## **Bachelor of Technology in Computer Science Engineering (Artificial Intelligence)**

BRACT'S Vishwakarma Institute Of Information Technology, Pune, Maharashtra

Nov 2022 - Present CGPA: 8.74

#### TECHNICAL SKILLS

Programming Languages: Java, Python, JavaScript

Web Development: HTML, CSS, JavaScript, React.js, Next.js, WordPress

AI Machine Learning: Machine Learning Algorithms, Generative AI, LLMs, Computer Vision, Deep Learning, NLP

Robotics & ROS2: ROS2, Gazebo, RViz2, Linux OS

**Databases**: Supabase PostgreSQL, Neo4j (Graph Database), Vector Databases **Tools**: Docker, Git/GitHub, FastAPI, Strapi, Streamlit, BeautifulSoup4, LangChain

#### **EXPERIENCE**

AI Engineer Intern Jan 2025 - Present

Tejis.ai

- Developed Generative AI solutions including LLM fine-tuning and autonomous agents.
- Built and deployed REST APIs using FastAPI for scalable model serving.
- Integrated Graph Databases (Neo4j) and Vector Databases for efficient data retrieval.
- Implemented unit testing and pre-commit hooks to ensure robust deployment pipelines.
- Collaborated cross-functionally with product and ML teams to deploy solutions in production environments.

Data Science Intern Apr 2024 - Oct 2024

AlgoAnalytics

- Developed YOLO-based object detection systems for real-time surveillance and anomaly detection.
- Tuned and evaluated machine learning models to maximize performance metrics.
- Implemented Retrieval-Augmented Generation (RAG) systems for material manual analysis.

Completion Letter: View Here

### **PROJECTS**

#### **Autonomous Object Tracking and Picking Robot**

- Designed ROS2 architecture for autonomous ball tracking and picking in ABU Robocon 2024.
- $Implemented \ object \ detection \ using \ YOLOv5/YOLOv8 \ on \ a \ custom \ dataset \ for \ multi-color \ ball \ detection.$
- Developed decision-making algorithms for silo tracking and navigation.

Technologies: ROS2, OpenCV, YOLOv5, YOLOv8

## Newgate - AI-Driven Research Platform

- Built an AI platform for automated research report generation leveraging LLMs and web scraping.
- Integrated Supabase PostgreSQL for structured organizational data storage.

Technologies: Streamlit, Supabase, Groq, SerpAPI, NewsAPI, BeautifulSoup4, LangChain

# Sanjivani – AI-Powered Healthcare Platform

- Developed a multilingual healthcare chatbot with appointment booking and Zoom integration.
- Built AI models for disease prediction (skin disease, brain tumor, X-ray analysis, diabetes assessment).
- Integrated virtual assistant with data visualization, analytics, and digital prescriptions.

Technologies: Groq, OCR, Strapi, FastAPI, Next.js, Node.js, REST APIs

### **ACHIEVEMENTS**

- Finalist, DD ROBOCON 2024
- Finalist, E-Yantra 2024-25
- Published Research Paper at ICCUBEA 2024
- Developed multiple live software and websites for industry projects

**Certifications**: Machine Learning A-Z<sup>TM</sup>: AI, Python & R + ChatGPT Bonus [2023]