

Kusuma Yanna

📍 Hyderabad ✉ yannakusuma5@gmail.com ☎ +919701181000 in kusuma-yanna 🌐 kusumayanna

OBJECTIVE

Passionate about technology and innovation, I have strong problem-solving skills, leadership, and effective communication. I have participated in hackathons like Google Code Jam and Hack Cloud, constantly seeking to expand my skills. As a class representative (2022-2025), I demonstrated a balance of academic excellence and extracurricular participation. Eager to contribute to impactful projects, I aim to leverage both practical experience and theoretical knowledge for meaningful advancements in technology.



Education

Woxsen University, Hyderabad <i>B.Tech in Data Science and Artificial Intelligence</i>	2021 – 2025
Narayana Junior College, Hyderabad <i>MPC (Maths, Physics, Chemistry)</i>	2019 – 2021
Silver Oaks International School, Hyderabad, India <i>Class 1–10</i>	2009 – 2019

Internship

Research Intern <i>Center for Human Security Studies (CHSS)</i>	<i>Jubilee Hills, Hyderabad</i> <i>Feb 2024 – June 2024</i>
<ul style="list-style-type: none">Collaborated with the Telangana State Integrated Command Control Centre (TSICCC) on the project "AMBULANCE DETECTION IN HEAVY TRAFFIC CONDITIONS", addressing delays in emergency response caused by urban traffic congestion.Conducted field research with Cyberabad Traffic Police, identifying challenges and defining the problem statement for effective ambulance detection at busy junctions.Led efforts in technology evaluation and data collection, preparing a comprehensive dataset for model training.Designed and implemented a camera-based real-time ambulance detection system, achieving 92% accuracy using YOLOv9.Enhanced model performance through data preprocessing and augmentation techniques.Delivered a functional prototype that emits audible alerts upon ambulance detection, assisting traffic authorities in immediate decision-making.Proposed future enhancements, including Optical Character Recognition (OCR) for character recognition and IoT integration for real-time deployment.Demonstrated strong collaboration, analytical thinking, and a user-centric approach to solving critical urban challenges.	

Projects

Indian Sign Language Detection	github.com/Indian sign Language 
<ul style="list-style-type: none">Developed an advanced Indian Sign Language (ISL) detection system utilizing one-shot and few-shot learning techniques for real-time video analysis.Leveraged machine learning models to accurately recognize and interpret ISL gestures with minimal training data, enhancing communication accessibility for the hearing-impaired community.	
Automated Summary and Query System	github.com/kusumayanna 
<ul style="list-style-type: none">Developed a Chrome extension integrating Gemini 1.5 for automated summarization, comparison, and query system to enhance web research efficiency.	

- Streamlined information retrieval by generating concise summaries, enabling side-by-side comparisons, and providing query-based insights directly in the browser.
- Improved user productivity by creating an intuitive AI-powered tool for rapid insights and decision-making.

Anxiety Disorder Detection Using Machine Learning

github.com/AnxietyDetection



- Built an anxiety detection model using the FER 2013 dataset of 35,000+ images, leveraging CNN and facial landmark detection for emotion analysis.
- Preprocessed key facial features such as eyebrow distance and eye contact, and trained the mini-XCEPTION model to detect anxiety patterns.
- Deployed as an accessible API for instant predictions, enhancing mental health evaluations and technological accessibility.

Technical Skills

Programming Languages: Python and SQL

Machine Learning & Deep Learning: Hands-on experience with training models, neural networks, and advanced ML/DL frameworks

Computer Vision: Expertise in image processing, object detection, and real-time video analysis using state-of-the-art algorithms

Natural Language Processing & Generative AI: Proficient in developing language models and conversational AI solutions

Data Visualization & Analytics: Power BI for dashboard creation and actionable insights

Research and Publications

- **"Adaptive Intelligence in Warehouse Robotics: Efficient Pick-and-Place Robot for Dynamic Environments"**
 - Accepted for publication in the *Journal of Electrical Systems (JES)*, ISSN: 1112-5209, Paper ID: JES_2024_12.3370.
- **Patent: "SafeLift (The Next-Gen Borewell Rescue Bot)"**
 - Patent submitted with Reference Number: WU.10034.
 - Description: Innovative rescue robotics solution for borewell emergencies.