E-Mail: vishnuvasants@gmail.com

Mobile: +91 9840063842

Objective

Recent B.Tech graduate with a strong background in Artificial Intelligence, Data Science, and Software Development. Seeking to leverage technical expertise and research experience in a Master's program to tackle complex global challenges. Passionate about driving innovation and committed to continuous learning, with proven skills in teamwork, leadership, and project management. Eager to contribute to cutting-edge research and impactful projects while advancing academic and professional growth in AI.

Academic Profile

Degree / Course	University / Board	Year of Completion	Result
Bachelor of Technology in Artificial Intelligence and Data Science	Sri Venkateswara College of Engineering / R-18 (CBCS)	2024	9.1 CGPA
Pre-University Examination [12th Standard]	Ebenezer Marcus International School / CBSE	2020	80.4 %
Secondary School Leaving Certificate [10th Standard]	Carmel Public School / ICSE	2018	81.4%

Academic Projects

Project No. 1

Title: Automated Text Embedding on Images

Department: Computer Science and Engineering

College Supervisor: Dr V Rajalakshmi

Abstract: Automated object-centric text embedding in images improves the process of adding customized text to AI-generated images. Instead of generating images directly from text prompts, the method creates the image first, then embeds the text onto specified objects, including a person's face and pose as required.

Index terms: Object-Centric Image Processing, Generative AI, Pose-Specific Image Synthesis, Dynamic Text Annotation, Multimodal AI Integration, Personalized Image Customization, Image-Text Alignment, Semantic Object Localization, Computer Vision and Text Embedding.

Project No. 2

Title: COPD Progression Assessment

Department: Computer Science and Engineering

College Supervisor: Ms G R Khanaghavalle

Abstract: Developed a multi-class COPD severity diagnostic system utilizing the 12-channel lung sound dataset, RespiratoryDatabase@TR. Employed advanced feature extraction techniques including spectrogram, Mel spectrogram, and chromogram analysis, alongside specific data preprocessing and augmentation methods. Utilized the RESNET50 model for precise classification across COPD severity levels. This approach demonstrates the potential of sound-based diagnostics for early COPD detection, addressing the global challenge of COPD and enhancing diagnostic and treatment capabilities.

Index terms: Chronic Obstructive Pulmonary Disease (COPD), Lung Sound Analysis, Multi-Class Classification, Feature Extraction Techniques, Spectrogram Analysis, Mel Spectrogram, Chromogram Analysis, RESNET50 Model, Data Preprocessing and Diagnostic Systems

Project No. 3

Title: ACCICARE – Accident Mitigation System

Department: Computer Science and Engineering

College Supervisor: Dr D Vinodha

Abstract: Developed an accident mitigation system that detects incidents and notifies nearby hospitals within a specified radius, optimizing ambulance response time based on hospital availability. Implemented a Natural Language Processing (NLP) module to facilitate seamless user interaction, integrated with eye blink and blood detection modules. This integration enhances the overall functionality and efficiency of the system, significantly improving emergency response and user experience. Additionally, the system's real-time capabilities ensure rapid incident management, while adaptive algorithms continually refine response strategies based on real-world data.

Index terms: Accident Mitigation System, Emergency Response Optimization, Hospital Notification System, Natural Language Processing (NLP), Eye Blink Detection, Blood Detection Module, Real-Time Incident Detection, Ambulance Dispatch Efficiency, User-System Interaction, Geofencing and Radius-Based Notification.

Technical Events/Workshop/Conference Participations

- **Object Detection and Segmentation** workshop – *IIT Madras*
- **Make your own DALL-E** workshop – *IIT Madras*
- *Presented paper* titled, "**Chronic Obstructive Pulmonary Disease (COPD) Severity Classification using lung sound**" – *10th International Conference on Communication and Signal Processing (ICCSP)*
- **Shaastra Programming** contest – *IIT Madras*
- **CSEA Abacus** event – *Anna University*
- **Code-a-thon** contest – *Vellore Institute of Technology*
- **YESIST 12** conference – *Panimalar Institute of Technology*
- **Robotics and Automation** workshop – *Sri* Venkateswara College of Engineering
- **Python for Data Science** workshop – Sri Venkateswara College of Engineering
- **Coder's Crusade Protocol** event – Sri Venkateswara College of Engineering

Achievements

- **1st Runners Up** – PSG iTECH Hackfest 72 hours hackathon
- **2nd Runner Up** – CIT Hackerz Hackoverflow event
- **Best Sustainable Hack Award** – NIT Bhopal Version Beta 36 hours hackathon
- **Budding Bright Engineer Award** – SVCE for Academic Excellence
- **Research Paper Publication in IEEE** – COPD Severity Classification using lung sound
- **Finalist** – 5th edition of Smart India Hackathon's Software Edition
- **Semi Finalist** – 6th edition of Smart India Hackathon's Software Edition
- **Guest Lecture on Artificial Intelligence** – Carmel Public School, Veppampattu
- **Hackathon Mentor** – Ease the Error 3.0 hackathon by Forum of Data Science Engineers
- **Project Mentor** – Winners of ICUBE 3.0 hackathon and 21st Annual ISTE Convention

Professional Experience

MACHINE LEARNING INTERN   JAN 2024 TO APR 2024

MOCERO HEALTH SOLUTIONS   *CHENNAI*

Developed an Evaluation Engine module for assessing social media content performance using various open-source Large Language Models (LLMs). Implemented predictive analytics to forecast content engagement metrics across multiple platforms, enhancing strategic planning for content deployment. Automated the complete content creation workflow, including blogs and posts, tailored to user-defined topics, platforms, and templates. This automation not only streamlined content generation but also improved the system's competitive advantage over existing LLM solutions by enhancing accuracy and efficiency in content production.

MACHINE LEARNING INTERN   JAN 2023 TO FEB 2023

MOBIS INDIA LTD
CHENNAI

Optimized OpenMV's machine vision platform, focusing on algorithm modules for Front End and Front Chassis systems. Achieved a significant reduction in cycle time by 4.8 seconds through enhanced processing techniques. Ensured fault-proof detection of Copper Washers by refining algorithmic accuracy. Updated Frame Buffer and Threshold markings to boost real-time image processing performance, resulting in improved detection reliability across diverse operational environments. These enhancements led to a more robust and efficient machine vision system with better performance metrics.

FULL STACK (LOW CODE) INTERN   JUN 2022 TO AUG 2022

IIT MADRAS   *CHENNAI*

Developed a comprehensive web portal for the PALS initiative at IIT Madras using Retool, a Low Code development platform. The portal greatly enhanced public engagement and streamlined operational processes by integrating a PostgreSQL database and implementing advanced JavaScript functionalities. Applied agile methodologies to manage project milestones and deliverables effectively. Completed the project within a tight 10-week timeframe, resulting in a 33% reduction in manual work and significantly improving operational efficiency. The portal's design facilitated easier user interaction and data management, contributing to improved project outcomes.

Strengths

- Analytical Thinking
- Leadership
- Team collaboration
- Adaptability
- Mentorship
- Autodidact

Activities

- SVCE Science Club
    Chief Executive Officer : 2023-2024
    Executive Member (Tech): 2021-2023
- Internal Quality Assurance Cell
    Vice President (Tech): 2022-2023
    Student Coordinator: 2021-2022
- Youth Red Cross
    Student Treasurer: 2022-2023
    Executive Member: 2021-2022
- ACM Student Chapter
    Senior Executive: 2022-2023
    Executive member: 2021-2022

Hobbies

- Music
- Travelling
- Fitness
- Hiking
- Competitive Coding

Personal Details

Date of Birth	:	20th October, 2002
Gender	:	Male
Marital Status	:	Unmarried
Nationality	:	Indian
Mother tongue	:	Sourashtra
Languages Known	:	Sourashtra, English, Tamil, Hindi, German

Declaration

I hereby declare that the above mentioned information is correct up to my knowledge.

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