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# 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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