YUKESH J

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Second-year Information Technology student with strong foundations in C, C++, and Python. Experienced in systems-oriented problem solving, custom data formats, and game development using Unity and Unreal Engine. Interested in low-level programming and performance-aware design.

EDUCATION

RMK ENGINEERING COLLEGE
B.Tech – Information Technology | 2024–2028

PROJECT

1.C2PM – Color-to-Pixel Map Image Format
GitHub Repository :
https://github.com/yukeshj2006/C2PM-Color-to-Pixel-Map-Image-Format

- Designed a **novel image file format** using an inverted index model: Color → [Pixel Indices]
- Enables **O(1) color-based queries**, replacement, and analysis
- Implemented custom binary layout with headers, color tables, and index lists
- Analyzed tradeoffs between **storage overhead vs analytical performance**
- Published open-source implementation and documentation

Tech: C, Binary File I/O, Data Structures, Hash Maps, File Format Design

2.Food Allergen Detection System

Computer Vision Project

- Built an image-based system to **detect food items and identify potential allergens**
- Used a trained ML model to classify food from images and map results to allergen metadata
- Designed the pipeline from **input → inference → result interpretation**
- Focused on correctness, edge cases, and real-world usability rather than demo-only accuracy

Tech: Python, Computer Vision, Machine Learning

SKILLS

•Programming languages: C, C++, Python, C#, Java

•Database management: MySQL, MongoDB

•Core concepts: Data structures, algorithms, file formats

•Version control: Git, GitHub

•Operating systems: Linux, CLI basics

CERTIFICATE

- NPTEL - Software Testing (Topper + Elite Silver)

- Java Developer - Infosys Springboard

- Introduction to MongoDB - MongoDB University

LEARNING & EXPLORATION

• CS50x – Harvard University (in progress)

• Exploring emulator and virtual machine design (CHIP-8, classic systems)

• Researching alternative data layouts, file formats, and compression techniques