# RAHUL RAJ.R

## AI/ML Enthusiast

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**OBJECTIVE:** Passionate about AI/ML research, with a focus on learning, exploring new ideas, and building impactful solutions through innovation and experimentation.

**PROJECTS:** 

#### □ IAMRAHULR30

## KelvinWarp: Image & Video Deformation

 Implemented Kelvinlet-based image and video deformation for realistic elastic effects. Optimized parallel and sequential pipelines using OpenCV, Ray, and NumPy.

## **Violence Detection System:**

 Built with ConvLSTM for video analysis, using OpenCV for frame processing and FaceRecognition for identifying individuals.

#### NewsCat

 Engineered a Celery-powered ETL pipeline for real-time news article classification. Collected training data via web scraping and applied NLP techniques with TensorFlow and SpaCy. Utilized asynchronous Celery tasks for efficient article processing and classification.

#### ChromoNet

 Crafted a high-precision chromosome image classifier using transfer learning and a Flask backend, achieving 95% accuracy to streamline biomedical analysis.

## PhyMathQA: BART-Based Question Answering for Research Papers

 Fine-tuned a BART-based model for question-answer generation in physics and mathematics research papers.
Optimized dataset preprocessing with chunking and NLP pipelines using Pytorch and Hugging Face.

## Unsplash Clone MERN + S3

Developed a sleek photo-sharing web app using the MERN stack(MongoDB, Express.js, React, Node.js) with Amazon
S3 for robust image storage and responsive performance.

## Static Blog Deployment - starryreads.com

 Launched a fast, secure static blog on AWS S3 with Cloudflare CDN for exclusive Cloudflare access, fortified with AWS Lambda and scheduled via EventBridge for daily automated execution.

#### **TECH STACK:**

**Languages -** Python, JavaScript, C (basics).

**Frameworks** – Django, Flask, React, MERN stack.

AI/ML - TensorFlow, NLP , ETL, OpenCV, NLTK

**Databases -** PostgreSQL, MongoDB.

#### **CODING PROFILES:**

Leetcode : Rahulraj\_30

👂 Kaggle : Rahul30

Github : Iamrahulr30

Codewars : Rahulr30

#### **ACHIEVEMENTS:**

- ✓ Solved 100+ problems on LeetCode.
- ✓ Runner-up in Inter-College and Zonal-Level Basketball matches.

## **Beyond Tech:**

- Books,
- Basketball,
- \* Running,
- Movies.

### **EDUCATION:**

## Vellore Institute of Technology (VIT), Vellore

M.Tech in Computer Science and Engineering (Specialization in AI & ML) 2024 - 2026

CGPA: 8.73

Kingston Engineering College

B.E in Computer Science and Engineering 2020 - 2024

CGPA: 7.9

### **CERTIFICATIONS:**

- Full Stack with Python Programming Naan Mudhalvan (GUVI)