About Me - Joel Ebenezer

Personal Details

Name: Joel Ebenezer

Age: 21 years old

Date of Birth: April 26, 2004

Schooling: VCV Shishu Vidyodaya

12th Marks: Scored a total of 575 marks

Cutoff: 195.5

College: PSG Institute of Technology and Applied Research

CGPA: 8.7

Interests

- Football
- Gym
- Gaming
- Travelling

Technical Skills

Programming Languages: C++, Python, C, JavaScript (Basics), Java

Frameworks & Libraries: React, Django, PyTorch, TensorFlow

Projects

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1. Low-Dose CT Scan Denoising

- Developed a web-based system using the RED-CNN model to enhance low-dose CT scan images.
- Built a Django backend to process DICOM/IMA images and provide real-time denoising.
- Designed a responsive frontend using JavaScript for seamless interaction.
- Implemented PSNR, SNR, and SSIM evaluation metrics to ensure high-quality results.

2. KidsArtPsychology

- Created an AI-powered system to analyze children's drawings and infer emotions.
- Fine-tuned Qwen-2 for detailed image captioning.
- Trained Phi-3 on psychological case studies to extract insights.
- Developed a pipeline where Qwen-2 generates captions, which Phi-3 interprets.

3. Portfolio Website

- Developed a personal portfolio website to showcase my skills, projects, and contact details.
- Built using HTML, Tailwind CSS, React, and Bootstrap.

4. News Chatter

- Built a full-stack news aggregation platform using the MERN stack.
- Implemented features like upvotes, downvotes, and comments.
- Developed a responsive frontend with React and styled it using CSS.
- Created a secure backend with Node.js, Express.js, and MongoDB.

5. Pest Detection

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- Built a real-time pest detection system for agriculture using Raspberry Pi and ResNet.
- Designed a pipeline where the camera captures images every 4 hours for automated pest detection.
- Implemented a RAG model to generate alerts and actionable insights for farmers.

Coding Platforms

- LeetCode
- CodeChef

Internships

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1. Machine Learning Engineer Intern - SAP Labs (April 2024 - June 2024)
   - Built a web scraping pipeline to collect vendor data from IndiaMART using Beautiful Soup.
   - Embedded data into a FAISS index using the MXBAAI similarity search model.
   - Fine-tuned the Phi-3 model to recommend vendors with 89.17% accuracy.

2. Machine Learning Engineer Intern - Sacha Engineering (August 2024 - November 2024)
   - Designed a surrogate modeling system to predict drag coefficients for automobiles.
   - Trained a hybrid model using ResNet and Gradient Boosting on the DrivAerNet dataset.
   - Achieved 98.62% accuracy, providing a cost-effective alternative to CFD simulations.

Extracurricular Activities

- 2nd Runner-up at TechBrew Hackathon

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- Finalist at Itech Ideathon

- Active Member of the Coding Club

Strengths

- Consistency

- Discipline