Harsh Agarwal

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OBJECTIVE

Motivated AI developer with strong foundations in C++, Python, and data structures. Passionate about computer vision, deep learning, and real-time image processing. Seeking opportunities to apply skills in hands-on AI projects within innovative teams.

SKILLS

Languages: C++, Python, SQL
Generative AI and Prompt Engineering: Stable Diffusion, OpenAI (GPT), Hugging Face
Computer Vision and Image Processing: MediaPipe, OpenCV
AI Workflows and Automation: Modular Python pipelines, script-based automation
Large Language Models and APIs: OpenAI API, Hugging Face Transformers, RESTful APIs
Reinforcement Learning: Used for segmentation post-processing optimization
Data Engineering: Web scraping using Scrapy, dataset curation, data lake structuring

EXPERIENCE

Codified Web Solutions   Jaipur, India
AI Developer Intern   June 2025 – Present

- Developed AI tools to analyze and improve house images using models like BLIP, Grounding DINO, SAM, and Stable Diffusion.
- Designed modular Python components for image captioning, segmentation, prompt generation, and enhancement.
- Built web-scraped datasets using Scrapy and applied reinforcement learning to improve segmentation quality.

PROJECTS

AI House Prompt Enhancer & Visualizer   BLIP + GPT-4 + Stable Diffusion
June 2025 – Present

- Built an AI pipeline that transforms house images into enhanced visuals using minimal user input.
- Used BLIP for initial prompt generation, refined with GPT-4 for structure and style, and rendered using Stable Diffusion.
- Designed the system to be modular, editable, and JSON-tracked for each generation stage.

Real-Time Face Detection & Feature Labeling   MediaPipe + OpenCV
June 2025

- Developed a real-time facial landmark detection tool using MediaPipe and OpenCV.
- Detected and labeled eyes, nose, mouth, and ears from webcam input.
- Optimized for low-latency performance, suitable for AR, surveillance, and gesture-based apps.

EDUCATION

Bachelor of Technology in Computer Science with Specialization in AI and ML
JECRC University, Jaipur (In collaboration with Xebia)   2023 – Present