

Raghav Gupta

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About

Second-year Engineering student focused on AI/ML applications development of Agentic systems. Experience includes fine-tuning LLMs, implementing RaG systems, working on Video processing. Eager to contribute to real-world industrial AI applications with a passion for innovation and rapid learning.

Education

Bachelor of Engineering in Information Technology

2023 – 2027

University Institute of Engineering and Technology, Panjab University

- 2nd Year Student
- Reliance Foundation Undergraduate Scholar

Experience

AI/ML Developer | Design Innovation Centre (DIC)

Jan 2024 – Present

- Developed computer vision pipelines using OpenCV, Ffmpeg, imgaug, etc. for keyframe extraction and video augmentation, supporting model training and making it more efficient.
- Built and optimized facial emotion recognition systems using Action Unit detection with pretrained DL models, improving inference accuracy.
- Fine-tuned and deployed domain-specific Large Language Models (LLMs) using HuggingFace Transformers and PyTorch for document understanding and response generation.

ML Developer | Hackathons – RaG Systems

Feb 2024

- Designed and implemented a RaG system using FAISS and LLMs to extract insights from business documents, enabling automated decision support for industrial clients.

Open Source Contributor | GitHub Projects

2020 – Present

- Active GitHub contributor with 500+ commits in the past years across ML tools, automation scripts, and student-focused repositories.

Technical Skills

Programming Languages

- Python, C, C++, JavaScript, TypeScript, Rust, Haskell, SQL

Libraries & Frameworks

- PyTorch, TensorFlow
- HuggingFace Transformers
- OpenCV, Scikit-learn
- Pandas, NumPy, FAISS
- HTML5, CSS3

Development Tools

- Git, GitHub Actions
- Docker, VS Code, WSL
- Jupyter, LaTeX, Colab, Kaggle

Domain Expertise

- Machine Learning
- LLM Fine-tuning
- RaG
- Video Processing