



AKSHAT GUPTA

AI & ML ENTHUSIAST | INNOVATOR



Github



Portfolio



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TECHNICAL SKILLS

Software & Development

- Python
- C++
- Flask

Machine Learning & AI

- Tensorflow
- Pytorch
- Scikit-Learn
- Model Optimization

Generative AI & NLP

- Auto Encoders
- LoRA / QLoRA
- RAG
- Diffusion Models
- Large Language Models
- Transformers

Deep Learning

- GANs / VAE
- CNNs
- Transfer Learning
- RNNs, LSTM
- Transfer Learning
- Hyperparameter Tuning

CERTIFICATES

- Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization
- Fundamentals of Digital and Image Processing
- Unsupervised Machine Learning
- Generative AI for Everyone
- Algorithmic Toolbox

HACKATHONS

- Smart India Hackathon (2024)
- India AI Mission
- Galgotias International Hackathon



SUMMARY

AI Researcher & Developer passionate about Deep Learning, Machine Learning, Generative AI, and NLP, with a strong focus on building scalable AI-driven solutions that bridge research with real-world applications. Currently pursuing a B.Tech in Computer Science & Engineering (AI Specialization) at Bennett University. Experienced in LLMs, Diffusion Models, LoRA, and Computer Vision, leveraging cutting-edge AI frameworks to drive innovation and efficiency in AI development.



EDUCATION

B.Tech in Computer Science & Engineering (AI Specialization)

2022 - Present

Bennett University, Greater Noida, UP, India

CGPA: 8.63/10

Senior Secondary

2022

Sant Gyaneshwar Senior Secondary School, Delhi



PROJECTS (RECENT)

Custom Lora Flux Model

JAN, 2025 - PRESENT

Generative Ai, Python, LoRA Fine tuning, Flux model

- Fine-tuned a Custom LoRA Model within a Flux-based image generation system, utilizing Low-Rank Adaptation (LoRA) to enhance efficiency, enabling the creation of realistic, high-quality AI-generated images while improving adaptability and minimizing computational overhead.

Novel Eye Disease Prediction Model

SEPT, 2024 - DEC, 2024

Deep Learning, Tensorflow, Ensemble Learning

- Engineered a novel ensemble model for Eye Disease Detection, integrating multiple deep learning architectures with transfer learning to achieve high-accuracy classification of 10 eye diseases from fundus images, enhancing the reliability of AI-assisted ophthalmology diagnostics.

Medical ChatBot

Nov, 2024 - Dec, 2024

NLP, RAG, LangChain, OpenAI

- Conceptualized and built an AI-powered Medical Chatbot, utilizing retrieval-augmented generation (RAG), LLMs, and NLP to deliver accurate, context-aware medical assistance, enhanced by a vector database for real-time responses and seamless adaptation to evolving medical knowledge.

FacePay

Nov, 2024 - Dec, 2024

Computer Vision, Python, SQLite, Flask

- Designed FacePay, an AI-powered facial recognition payment system, integrating computer vision and secure authentication techniques to facilitate fast, contactless, and secure transactions, enhancing fintech solutions with real-time identity verification.



RESEARCH PAPERS (WORK IN PROGRESS)

Deep Learning-Based Brain Tumor Identification

A Lightweight Deep Learning Framework for Detecting Potato Disease Using the Grasshopper Optimization Algorithm