Harsh Gupta

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PROFILE SUMMARY

Third-year Computer Science student specializing in Artificial Intelligence (AI) and Machine Learning (ML), with a strong foundation in Python, scikit-learn, data science, and deploying ML models for real-world applications serving multiple users. Demonstrated expertise through multiple GitHub repositories focused on ML projects, showcasing analytical and programming skills in creating data-driven solutions. Proven leadership in technical teams and hackathon competitions.

EDUCATION

VIT Bhopal University

Bhopal, India

Bachelor of Technology in Computer Science & Engineering (Specialization in AI & ML)

2023 – 2027

• 9.08/10 CGPA (Current)

Higher Secondary School Certificate (HSSC)

2020-2022

• 85%

Secondary School Certificate (SSC)

2018-2020

• 80%

SKILLS

Technical: Python3, Data Analysis, Machine Learning, Deep Learning, Data Structures, Natural Language Processing (NLP), Computer Vision, Neural Networks, Statistics

Tools: Jupyter Notebook, VS Code, Git & GitHub, Pandas, Matplotlib, Tesseract (OCR), Scikit-learn, TensorFlow, NumPy, PyTorch, Keras, Hugging Face Transformers, Streamlit, Docker, n8n (for workflow automation in ML pipelines), SQL,langchain,langgraph,langsmith

CERTIFICATIONS

- AWS Certified Machine Learning Engineer Associate July'25 (link)
- GEN AI using IBM Watsonx by IBM Developer Skill Network June'25 (link)

EXPERIENCE

UX Club, VIT Bhopal Bhopal, India

Operations Manager, Tech Dept.

December, 2024 - Present

- Leading the development of the club's website to serve a community of 1,000+ members.
- Participated in weekly R&D discussions and contributed to architectural decisions.

PROJECTS

Project Summary: Vaidyasetu

May,2025 – July,2025

- Built VaidyaSetu Al-driven healthcare prototype integrating telemedicine (WebRTC), OCR + LLM pipeline, and Al diagnostics, improving doctor-patient accessibility +35% (20 users).
- Engineered OCR-LLM workflow for structured report extraction + auto-scheduling (Google Calendar API), cutting manual scheduling effort by ~60%.
- Trained CNN (10K+ Kaggle images), achieving 96% validation accuracy in disease classification; integrated NLP chatbot, boosting report comprehension +40%.

Project Summary: LLaMA-3 QLoRA Fine-Tuning for Heart Disease Recommendations

June,2025 - July,2025

- Fine-tuned LLaMA-3 8B model with QLoRA + LoRA adapters on a custom heart disease dataset, achieving 50% lower
 GPU memory usage while maintaining high response accuracy.
- Designed a preprocessing pipeline to convert 2,000+ JSON records into Hugging Face—ready datasets and streamlined publishing of datasets and models to the Hugging Face Hub, reducing manual effort by 70%.
- Optimized training workflow with transformers, TRL, accelerate, and bitsandbytes, implementing gradient checkpointing and AdamW-8bit optimizer, which increased training efficiency by 30% and ensured reproducibility through logged metrics.

ACHIEVEMENTS

- Winner of VIT Mother's Day Challenge, designing an innovative solution that strengthened engagement and awareness among 100+ participants.
- Led team to 3rd place in Hack4Health Hackathon at VIT