Santosh Kumar

✉ santoshkumgkg@gmail.com   📞 +91-7479439690   🔗 LinkedIn   GitHub

EDUCATION

Indian Institute of Information Technology, Lucknow   Lucknow
Masters of Science in Artificial Intelligence and Machine Learning; CGPA: 9.45   Dec. 2023 – Present

Delhi University, Shivaji College   Delhi
Bachelor of Science (BSc) in Mathematics (Hons); CGPA: 9.162   Aug 2020 – May 2023

RESEARCH EXPERIENCE

- **LLMOPs Research Project:**   *Apr 2024-present*
  - Led a team in developing an LLM Agent for automating bookkeeping processes, focusing on responsible AI principles and trustworthy systems.
  - Implemented advanced RAG pipelines and LLM fine-tuning techniques to ensure ethical and unbiased AI operations.
  - **Tech Stack:** LLM Agents, LLM Fine-tuning, RAG pipelines, FastAPI
- **MLOps Research at AYUDH AI:**   *Mar 2024-Apr 2024*
  - Developed and deployed a RAG-based system for enterprises, focusing on explainable AI and ethical data management.
  - Implemented robust authentication systems and managed the development process adhering to responsible AI guidelines.
  - **Tech Stack:** ChromaDB, LLM Inference servers, Hugging Face, Ethical AI frameworks

RESEARCH PROJECTS

- **Ethical AI in Education:** Developed a RAG-based College Counselling Chatbot, focusing on fairness and transparency in AI-driven educational guidance.   **Tech Stack:** Langchain, Groq API, RAG, Ethical AI principles
- **Responsible Data Interaction:** Created LLM Agents for ethical interaction with Gmail and Databases, emphasizing data privacy and security.
- **Advanced RAG for Trustworthy AI:** Developed a web application using advanced RAG techniques, focusing on interpretability and bias mitigation.   **Tech Stack:** ReactJS, FastAPI, Advanced RAG, Responsible AI frameworks
- **AnywhereLLM:** Designed a system to ethically integrate LLMs across various platforms, adhering to responsible AI guidelines.   **Tech Stack:** Python, Ethical AI implementation, API development

SKILLS

- **Technical Skills:** Machine Learning, Deep Learning, Statistical Analysis, Natural Language Processing, Responsible AI frameworks, Explainable AI techniques
- **Tools & Frameworks:** PyTorch, TensorFlow, Scikit-learn, Hugging Face, Docker, AWS, FastAPI, ReactJS
- **Soft Skills:** Research Methodology, Scientific Writing, Ethical AI Advocacy, Team Leadership, Cross-functional Collaboration

ACHIEVEMENTS & PUBLICATIONS

- Secured **35th Rank** in the All India Hackathon AI ARENA 2.0, showcasing innovative and ethical AI solutions.
- **IIT JAM All India Rank 🔗**: 804
- Contributed to a research paper on "Ethical Considerations in LLM-based Educational Counselling" (under review for publication)
- Conducted workshops on Responsible AI practices for undergraduate students