

MOKSH SHARMA

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[in](#) LinkedIn | [k](#) Kaggle | [github](#)

EXPERIENCE

- Centre For Railway Information Systems (CRIS)** June 2024 - July 2024
Project Trainee Remote
 - Worked on the CRIS GIS Domain project, focusing on web development using JS, Node.js & SQL. [\[Link\]](#)
 - Handled on-track and off-track data, ensuring efficient data collection and presentation.
- LEAD - Tech Society, TIET** Aug 2023 - Jun 2024
Core in Tech team [\[Link\]](#)
 - Conducted AI-ML and Web Development workshops for juniors.
 - Developed society websites and organized tech events like Ideathons and Coding Contests.
- Researcher** 2025
ISMS 2024-25 — 7th International Conference on Information Systems and Management Science
 - Authored and presented the paper "Early Detection of Forest Fire Using Fine-tuned MobileNetV2".
 - Developed a deep learning model with MobileNetV2 for early forest fire detection with improved efficiency.
 - Paper to be published in SCOPUS-indexed Springer LNNS proceedings.

PROJECTS

- RAG-Based Document Q&A System** 2025
Tools: [Llama2, Hugging Face, Langchain, PyTorch, Sentence Transformers, PyPDF] [\[github\]](#)
 - Developed a Retrieval-Augmented Generation (RAG) system using Llama2 and LlamaIndex for document-based question answering.
 - Implemented semantic search with Sentence Transformers for efficient retrieval of relevant document chunks.
 - Optimized Llama2 performance using 8-bit quantization via BitsAndBytes.
 - Extracted and processed text from PDF documents using PyPDF for structured querying.
- Imagify** 2024
Tools: [React.js, Tailwind CSS, Framer Motion, Node.js, Express.js, MongoDB] [\[Link\]](#)
 - Developed a web app allowing users to generate AI-based images from text using the Clip Drop API
 - Offered 5 free credits per user and provided a seamless experience for creating YouTube thumbnails, posters, and other visuals.
 - Deployed the application on Cloudflare and Render for efficient hosting and scalability.
- Brain Tumor Segmentation using Hybrid Deep Learning** Ongoing
Tools: [Python, TensorFlow, Transformers, CBAM]
 - Developed a hybrid deep learning model combining Transformer blocks and CBAM for brain tumor segmentation.
 - Trained on the BraTS dataset, achieving over 99% accuracy in tumor classification.
 - Enhanced segmentation precision using CNN and attention-based architectures.
 - Preprocessed MRI images with normalization and augmentation techniques to improve generalization.
- AI-Powered Courtroom Monitoring and Summarization System** Ongoing
Tools: [Python, NLP, ASR Frameworks]
 - Capstone project under Dr. Sanjeev Rao and Dr. Jasmeet Singh, developing an AI system to monitor court proceedings.
 - Designed to summarize discussions and detect inconsistencies such as biases, logical flaws, and legal violations using NLP and speech-to-text models.

SKILLS

- Languages:** C++, C, Python, SQL, JavaScript.
- Libraries:** Pandas, NumPy, Scikit-Learn, matplotlib.
- Frameworks/Databases:** TensorFlow, Machine & Deep Learning, MySQL, Large Language Models (LLMs).
- Coursework:** C, OOP, DSA, DBMS, AI-ML, Operating System, Network Programming, Software Engineering, Natural Language Processing (ongoing), Speech Recognition (ongoing).
- Developer Tools:** VS Code, Jupyter Notebook, Git/GitHub, LangChain, RAG (Retrieval-Augmented Generation), RStudio, MATLAB, XAMPP, Hugging Face, Kaggle.

EDUCATION

Thapar Institute of Engineering and Technology, Patiala, Pb *B.Tech in Computer Engineering (CGPA: 8.29)* **2022 – 2026**
Govt Senior Secondary School, Sansarpur Terrace, HP *Class 12 (Grade: 95.8%)* **2022**
B.B.M.B.D.A.V Public School, Talwara, Pb *Class 10 (Grade: 87.8%)* **2020**

ACHIEVEMENTS

- Certificates of Achieved Milestones, Participation Course Learning [\[Link\]](#)
- Mentored 400+ AFPI Aspirants [\[Link\]](#) 3.5yrs
- Appreciation Letter from GSSS Terrace (website : MySchool [\[Link\]](#)) [\[Link\]](#) Aug 2023
- NXP AIM India (Regional Finale) [\[Link\]](#) Aug 2024
- Presented paper in National Conference, Khalsa College, Amritsar (A Review of MLLMs in Healthcare) Feb 2025