AKSHIT SHARMA

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PROFESSIONAL SUMMARY

CS student who loves building things that actually work. I've worked on NLP and recommendation projects, including an LSTM-based sentiment analysis model and a collaborative filtering engine where I focused on improving accuracy, memory usage, and inference speed. I like understanding how models behave in practice and optimizing them beyond just getting them to work.

TECHNICAL SKILLS

Programming Languages: Python, C++, Julia, Java

Machine Learning & AI: TensorFlow/Keras, PyTorch, scikit-learn, LSTM, NLP, Neural Networks, Deep Learning

Data Science & Analytics: pandas, NumPy, NLTK, SpaCy, Sparse Matrices, Vectorized Computation

Web Technologies & Frameworks: React.js, Flask, Bootstrap, HTML, CSS

Cloud Platforms & Databases: Google Cloud Platform (GCP), Firebase, IBM Cloud, MySQL

Development Tools: Git, GitHub, Jupyter Notebooks, VS Code

HONORS & RECOGNITION

Excellence Award – Deep Learning

PDPM IIITDM Jabalpur | May – June 2025

- Top 5% Rank: Awarded "Excellent Performance" certificate in the 1st Summer School on Deep Learning (Cohort of ~100)
- Criteria: Recognized for exceptional performance in technical sessions, complex assignments, and final evaluation
- Proof of Work: View Deep Learning Lab on GitHub

PROJECT EXPERIENCE

Social Media Sentiment Analysis (NLP) *Sep 2024 – Nov 2024*

Technologies: Python, TensorFlow/Keras, LSTM, NLTK, SpaCy

- Approach: Developed an LSTM-based text classification pipeline for binary sentiment analysis on social media data
- Achieved 84.66% test accuracy with stable generalization, demonstrated by decreasing validation loss and increasing accuracy
- LSTM architecture effectively captured sequential context in text, significantly outperforming frequency-based baseline models
- Proof of work:Git Repo

Movie Recommendation Engine *Jul 2024 – Aug 2024*

Technologies: Python, pandas, NumPy, scikit-learn, Sparse Matrices

- Approach: Built a collaborative filtering recommendation engine using cosine similarity to identify semantic relationships between movies
- Example: Input "Iron Man" correctly produced relevant recommendations including The Avengers, Iron Man 2, X-Men: First Class, and Guardians of the Galaxy
- Optimization: Reduced memory usage by ~90% using Compressed Sparse Row (CSR) matrices
- Performance: Achieved sub-second query latency (<200 ms) using vectorized cosine similarity instead of iterative loops
- Proof of work:Git Repo

Chernobyl Incident Simulation Model *Nov 2024 – Dec 2024*

Technologies: Julia, DifferentialEquations.jl, DataFrames.jl, Plots.jl

- Developed a numerical simulation to model radiation spread patterns and containment behavior for scientific analysis
- Focused on performance-aware computation and visual analysis of simulation outputs using advanced differential equations
- Proof of work:Git Repo

GeoSmart Advisor – ML-Based Web Application *Mar 2024 – May 2024*

Technologies: Python, Flask, scikit-learn, Google Maps API

- Built an end-to-end ML-driven Flask web application to recommend high-potential business locations using geospatial features
- Integrated scikit-learn predictive models with Google Maps API for real-time location intelligence and decision support
- Proof of work:Git Repo

HACKATHON EXPERIENCE

WADLA 24-Hour Deep Learning Hackathon *June 2025*

PDPM IIITDM Jabalpur

- Competed in an intensive 24-hour onsite hackathon focused on applied deep learning challenges
- Strengthened skills in rapid problem-solving, technical decision-making, and collaborative development under strict time constraints

EXPERIENCE

Capstone Project Lead *Jul 2024 – Aug 2024*

Amazon Full Stack Training Program

- Led the development of a React-based e-commerce UI as the final capstone project
- Completed comprehensive hands-on training in building responsive, component-based user interfaces using React.js

Machine Learning Trainee *May 2025 – June 2025*

PDPM IIITDM Jabalpur

- Engineered and fine-tuned deep learning architectures (CNNs, LSTMs) using Python and Julia

Cloud Developer Trainee *Sep 2024 – Oct 2024*

IBM Cloud

- Deployed containerized applications to IBM Cloud, implementing auto-scaling policies

EDUCATION

Bachelor of Technology in Computer Science Engineering

Bahra University, Shimla Hills | *Expected Graduation: 2026*

CGPA: 6.9