

YACHANA ADHIKARI
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• [GitHub](#) • [LinkedIn](#)

Work History

AI Fellow | Fusemachines

Jun 2025-Nov2025 | Hybrid

Built a **news recommender web app** ; **CNNs and NLP**; applied **feature engineering, model tuning**, and **evaluation** with Python (NumPy, Scikit-learn, PyTorch). Gained hands-on experience in **responsible AI, bias mitigation**, and **technical presentations**.

Education

Tribhuvan University, BS in Computer Science, Sept 2022 – November 2026

- Coursework: Artificial Intelligence, Neural Networks, System Design, Software Engineering, Computer Architecture, ASP.net, Compiler Design, Computational Theory, Advanced Calculus
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Skills

Programming Languages and Tools

- Python, SQL, Git, JavaScript(basic), Asp.net(basic)

AI & Machine Learning

- Supervised Learning, Unsupervised Learning, Model Fine-Tuning, Transfer Learning, embeddings, Neural Networks, NLP

Frameworks and Libraries:

- LangChain, PyTorch, scikit-learn, Huggingface Transformers, FastAPI,

LLM APIs: Google Gemini, OpenAI

Vector Databases: FAISS

Advanced Topics

RAG(Retrieval-Augmented Generation), Chatbot Development, Large Language Models, Pyannote (Speaker Diarization), OpenAI Whisper (Transcription)

Web & API Development:

- FastAPI, Streamlit

Data Processing & Scraping:

- PyPDF2 (PDF Extraction), newspaper3k, Scrapy (Web Scraping)

Developer Tools:

- Git & GitHub, Google Cloud Platform (Vertex AI)
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Projects:

- **AI Debate Video Analysis Engine** | Python, FastAPI, Google Gemini, Whisper, Asyncio | [GitHub](#)

Built an end-to-end API that ingests a video, transcribes it with Whisper, identifies distinct speakers with Pyannote, and extracts key claims for analysis.

Implemented a concurrent asyncio pipeline that uses Google Gemini to fact-check claims, detect rhetorical fallacies, and generate a final, evidence-based verdict on the debate.

- **EarthPulse**(*Nasa-Space Apps challenge 2025*) : [Github](#)

An interactive geospatial analytics platform for visualizing environmental and geographic trends across the Himalayan region using real-time Earth Observation data. (*React · TypeScript · FastAPI · MapBox · Tailwind CSS · NASA APIs*)

Analytical web apps | Python, Streamlit, Google Gemini

- **AI Business Insights Generator:** [GitHub](#)

<https://business-insights-ai.streamlit.app/>

Takes user-defined topic and generates structured strategic frameworks, including SWOT analysis, market trends, competitive summaries.

- **News Research Analyst:** [GitHub](#)

<https://news-analyst1.streamlit.app/>

Takes live article URLs, scrapes and parses content using the newspaper3k library and performs a multi-perspective analysis to identify media bias and key talking points.

- **Talent Scout AI - Intelligent Hiring Assistant :** [Github](#)

<https://talent-scout-ai.streamlit.app/>

AI-driven hiring assistant using Python, Streamlit, Google Gemini with state-managed conversation flow and custom UI styling.

- **Fast-API-chatbot with ollama (phi3) :** [Github](#)

A lightweight Fast-API backend that streams real-time chat responses from local LLMs (phi3, mistral, tinyllama). (*FastAPI · Python · Ollama · LLM Integration*)

Machine-Learning Projects : [Github](#)

Certifications:

- **Google Cloud Skill Badge:** Prompt Design in Vertex AI
- **NAAMI AI School 2024**