KRISTINA GHIMIRE

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Machine Learning enthusiast currently learning and exploring NLP and Computer Vision fields. Committed to continuous learning and embracing challenges in the tech world.

EDUCATION

- **IOE, Thapathali Campus** *May 2021 - May 2025*
  Bachelor of Engineering, Computer Engineering
- **Nobel Academy** *Jul 2017 - Jun 2019*
  High School

TECHNICAL SKILLS

- **Languages:** Python
- **Libraries:** NumPy, Pandas, OpenCV, Matplotlib, spaCy, Scikit-learn
- **Frameworks/Tools:** PyTorch, Django, FastAPI, LangChain, LangGraph, AWS Lambda

EXPERIENCE

- **Associate Machine Learning Engineer** / *Ekbana* *Apr 2025 - Present*
  - Built backend APIs for AI applications and developed agentic workflows using tools, Model Context Protocol (MCP), and related orchestration frameworks.
  - Contributed to system design, feature planning, and implementation for both in-house and client projects.
  - Fine-tuned open-source language models for real-world applications and deployment.
  - Participated in AI research projects focused on LLMs, multi-agent systems, and model optimization.
- **Machine Learning Trainee** / *Ekbana* *Dec 2024 - Mar 2025*
  - Built a strong foundation in machine learning and AI through hands-on experience with real-world projects.
  - Developed machine learning models and backend APIs for production-oriented applications.
  - Designed and implemented multi-agent systems and machine learning solutions.
- **Poster Presenter** / *AAAI* / *Singapore* *Jan 2026*
  - Presented the poster, "Learning Collaborative Reasoning Strategies Through Trust-Weighted Multi-Agent Consensus," at the WMAC Bridge Program on Advancing LLM-based Multi-Agent Collaboration.
- **Research Training 2025** / *NRCC* *May 2025 - Aug 2025*
  - Completed research training in scientific research methodologies and experimental design.
  - Conducted research on improving the efficiency and reducing the size of Small Language Models (SLMs).
- **Fusemachine AI Fellowship 2024** / *Fusemachine* *Apr 2024*
  - Built strong foundation in AI and gained hands-on experience through projects
- **Data Fellowship 2023** / *Code For Nepal* *Dec 2022*
  - Learned from Datacamp through this fellowship

PROJECTS

- **NAME | AI Safety** *CV | NLP | Major Project | Bachelor's Degree*
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- **Chitran | Festive Poster Generator** *CV | NLP | Major Project | Bachelor's Degree*
  - Developed an end-to-end system that generates Nepali festive posters from English prompts using fine-tuned M2M-100 and Stable Diffusion v1.5.
  - Collected, cleaned, and processed bilingual text and image datasets for model training and evaluation.
  - Fine-tuned translation and image generation models to produce culturally relevant Nepali wishes and festive visuals.
  - Implemented custom text rendering and overlay techniques to seamlessly integrate translated wishes into generated posters.
  - Automated the complete poster generation pipeline from user prompt to final image.
- **Face Segmentation** *CV | Self Project*
  - Developed a face segmentation model using YOLOv8 to identify facial components including eyes, ears, nose, mouth, eyebrows, face, and neck.
  - Trained and evaluated an instance segmentation model for accurate facial part localization.
  - Designed the system as a foundation for facial similarity analysis based on individual facial components.
- **MWP | Math Word Problem Solver** *NLP*
  - Developed a system to solve mathematical word problems from both text and image inputs.
  - Fine-tuned a BART model to generate mathematical equations from natural language problem statements.
  - Integrated OCR to extract math word problems from uploaded images before equation generation.
  - Implemented a recommendation module to suggest similar math word problems for additional practice.
- **ResuMate | Automated Resume Screening System** *NLP | Minor Project | Bachelor's Degree*

- Developed an automated resume screening system that ranks resumes against job descriptions.
- Extracted semantic features from resumes and job descriptions using machine learning models.
- Leveraged pre-trained FastText embeddings to generate vector representations of textual data.
- Ranked candidates using a weighted semantic similarity scoring mechanism.

RESEARCH PAPERS

- **Learning Collaborative Reasoning Strategies Through Trust-Weighted Multi-Agent Consensus** / *IEEE* / *Link* *2026*
- **SOMD 2025: Fine-tuning ModernBERT for In- and Out-of-Distribution NER and Relation Extraction of Software Mentions in Scientific Texts** / *ACL* / *Link* *2026*

CERTIFICATES

- **Deep Learning Specialization (DeepLearning.AI)** / *Coursera* *Completed January 2025*
- **Mathematics for Machine Learning and Data Science Specialization (DeepLearning.AI)** / *Coursera Completed November 2023*
- **Machine Learning Specialization (DeepLearning.AI)** / *Coursera* *Completed July 2023*
- **Become a Python Master Course** / *Programiz* *Completed February 2023*