

Shreyas Dhakal

Research-oriented Computer Engineer passionate about Artificial Intelligence and Machine Learning. I am eager to gain hands-on experience and contribute to the ML and AI industries, especially in Generative AI and AI Agents.

Work Experience

AI Engineer, xval.ai

February 2025 - August 2025

- Performed research in the agentic framework pipeline to generate educational content using Langchain, LLMs, and their frameworks.
- Developed automatic text evaluation and improvement methodologies using LLMs and RAGs.
- Developed RAGs and vector databases for AI agent interaction.

Full Stack Web Developer, CodeCraft Web Solutions

July 2024 - Dec 2024

- Developed a hospital website using PHP and Laravel.
- Deployed and maintained the system on a production server, handling configuration, debugging, and performance optimization.
- Managed a team of developers and oversaw the project lifecycle from conception to deployment.

Internship in Machine Learning, SMTM Capital

May 2023 - November 2023

- Developed machine learning techniques (supervised and unsupervised) and algorithms for technical analysis of stocks.
- Performed various time series financial analyses (trends, support/resistance, etc) to assist stock investors.
- Integrated scripts in the stock analysis platform to handle a large amount of financial stock data using the NodeJS backend.

Educational Background

Master of Artificial Intelligence and Machine Learning

Adelaide University

February 2026 - Present

Bachelor in Computer Engineering

Tribhuvan University

November 2019 - July 2024

- Relevant coursework in Computer Engineering with focus in Machine Learning

Projects

Content Generation using LLMs and Generative AI

- Use of Langchain and LLM frameworks to develop Coursera-like content from a set of relevant documents related to urban mobility systems.
- Use of RAGs and vector databases to generate courses, quizzes, and course outlines for a given set of documents.
- Implementation of web crawling tools and RAGs to gather relevant content for a given topic.
- Development of a rubric-based, multi-agent LLM system to judge the quality of LLM outputs and generate feedbacks.

Contact

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Skills

Programming Languages

- Python
- C
- C++
- HTML, CSS, Javascript
- PHP
- R

Tools

- Langchain, RAGs, VectorDBs and other LLM frameworks
- Numpy, Pandas, Keras, Tensorflow
- Backend Frameworks (NodeJS, Laravel)
- Vibe Coding

Languages

- English (Fluent)
- Nepali (Fluent)
- Hindi (Proficient)

Certificates

- Neural Networks and Deep Learning, Coursera
- Foundations: Data, Data, Everywhere, Google
- Manage Your LLMs with LLMOps, LinkedIn Learning
- Generative Adversarial Networks (GANs): Complete Guide, Udacity

Smart Parking Management System

- Development of computer vision architecture, using multiple CNNs and YOLOv8 to detect the Nepali license plate system and read a wide range of number plate characters (both Nepali and English characters).
- Use of the YOLOv8 model to detect parking space occupancy of vehicles.
- Development and deployment of a mobile app system to facilitate parking in a private space.

Reinforcement Learning of NPC in Unity 3D

- Designed a multiagent reinforcement learning system where characters are required to pass a sequence of steps to complete the objective.
- Use of MA-POCA algorithm to complete the objective.
- Development of a Unity 3D environment to create the platform for the task.

Medical Website for Dirghayu Hospital

- Development of a medical website using PHP and the Laravel framework, complete with administrative panels and a booking system.
- Development of both frontend and backend systems, along with deployment and hosting of the website.