UNIQUE ADHIKARI

Technical Skills

Languages and Libraries: Python, Pandas, Numpy, Scikit-Learn, Matplotlib, Seaborn, TensorFlow, Keras

Database: MySQL, PostgreSQL, MongoDB

Tools & Technologies: Jupyter Nootbook, Git, Tableau, Excel

Machine Learning: Supervised & Unsupervised, Regression, Classification, Clustering

Other Skills: Data Visualization, Statistical Analysis, Problem Solving

Education

Tribhuvan University Mar 2022 – Mar 2026

Bachelor of Science in Computer Science and Information Technology

Bharatpur, Nepal

- · Relevant Courses: Data Structures, Algorithms, Artificial Intelligence, Statistics, Database Management System
- · Academic Projects: Ecommerce Web-Application, Project-RED

Experience/Projects

Data Science with GenAl - Innomatics Research Labs - Hyderabad, India (Internship)

Sep 2024 – Dec 2024

- **Problem Solving using Python Programming**: Achieved a 5-star Python badge on HackerRank by solving 50+ challenging problems, showcasing strong problem-solving and Python programming skills.
- Data-Driven Insights for Pizza Store Operations: Improving delivery performance and revenue management.
- Blog Publications: Published highly engaging blog posts on "How Search Engines Understand and Delivers Result" and "Evolution of Language Representation Techniques"
- **Building Apps Powered by RAGs**: Developed a RAG system using the LangChain framework, integrating the capabilities of LLMs like Gemini 1.5 Pro with external data sources to enhance information retrieval and generation.
- Al Powered Solution for Assisting Visually Impaired Individuals: Developed a Generative AI-powered app for visually impaired individuals using LangChain, Streamlit, and Google Generative AI, enabling real-time scene understanding, TTS, and obstacle detection.

Drishti Saarathi Nov 2023

Personal Project

- Developed a Python-based automation script for sending pre-defined messages repeatedly using PyAutoGUI for GUI automation.
- Integrated Gemini AI for scene descriptions, using image analysis to generate detailed narratives for users.
- Implemented **Tesseract OCR** to extract text from images and **gTTS** to convert the extracted text or scene descriptions into speech.
- Created a user-friendly interface, allowing users to upload images, interact with various features, and download speech outputs in MP3 format.
- Enabled enhanced accessibility for visually impaired individuals by combining Al-driven image description and text-to-speech features.

BakBak AI Nov 2024

Personal Project

 Designed and developed BakBak AI, an entertaining chatbot that interacts with users in Romanized Nepali, incorporating humor, gossip, and casual conversation for user engagement.

- Leveraged **Google Generative AI (Gemini 1.5 Pro)** to implement an advanced conversational model, ensuring realistic and contextually appropriate responses.
- Integrated the system with **Streamlit**, creating an intuitive and interactive user interface for seamless chatting experiences.
- Configured a unique chatbot personality with a fun and gossip-oriented tone, incorporating **emojis** and adhering to custom behavioral rules.
- Emphasized ethical development by ensuring the chatbot complies with user-friendly and respectful engagement practices.
- Highlighted potential applications in **entertainment**, **language learning**, and **regional cultural integration** for Alpowered tools.

3ntry COunter Jun 2024

Personal Project

- Built a real-time people counting system using computer vision to track individuals entering through a door.
- Leveraged YOLOv8s (You Only Look Once) for object detection and tracking, ensuring high accuracy and
 efficiency in identifying and counting individuals.
- Fine-tuned **COCO dataset labels** to optimize detection performance for the specific use case.
- Designed a modular architecture for seamless processing of real-time video streams and accurate entry counts.

Info Hunt May 2024

Personal Project

- Developed a robust web scraping tool to gather, process, and organize data from various online sources efficiently.
- Optimized the system for efficient data handling, leveraging **Python libraries** such as **BeautifulSoup** and **Requests**, and maintained modularity with a clean codebase.
- Demonstrated the solution's applicability in automating data aggregation for analytics, research, and market trend tracking.
- · Designed a modular architecture for seamless processing of real-time video streams and accurate entry counts.

Auto Message Sep 2023

Personal Project

- Developed a Python-based automation script for sending pre-defined messages repeatedly using PyAutoGUI for GUI automation.
- Implemented a loop-based mechanism to send messages efficiently, simulating keyboard typing and key presses.
- Incorporated time management functions to control execution flow, ensuring smooth operation and accurate timing.