# Rojan Dahal

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### **EDUCATION**

## Gannon University, Erie, PA, USA

Dec 2025

Master of Science in Computer and Information Science

Major: Data Science

Grade: GPA 4

## London Metropolitan University, Nepal

Dec 2021

Bachelor of Science (Hons.) Computing

**Grade First Class Honors** 

### WORK EXPERIENCE

## Gannon University, Erie, PA, USA

Jan 2024 – May 2024

Student Research Assistant

- Assisted in data preparation and cleansing for a Convolutional Neural Network (CNN) model aimed at improving surface leveling on metal 3D printers, enhancing printing quality and reducing waste.
- Documented research methodologies and findings, providing clear and concise reports for project continuity.
- Worked closely with faculty mentors, gaining hands-on experience in data processing and real-world machine learning applications.

## BitsKraft Pvt. Ltd., Kathmandu, Nepal

Nov 2021 – Nov 2023

AI/ML Engineer

- Developed and deployed AI models using machine learning frameworks (TensorFlow, PyTorch) to enhance business intelligence and analytics efforts.
- Build and maintained Python-based REST API for document classification, facilitation seamless integration into third party platforms like video banking and workflow managements systems.
- Led data preparation and cleansing for face analytics projects, ensuring high-quality inputs for AI models achieving 95% accuracy in face verification.
- Achieved a 90% accuracy rate in bank cheques signature verification by training an AI model using YOLOv5, resulting in reduced false positive and enhanced security.
- Designed and developed a POS device for notification purposes post-payment transactions via QR codes, integrating with digital wallets or mobile banking, resulting in a 30% increase in transaction efficiency.
- Developed an OCR-based document extraction web solution supporting multiple data types, automating data extraction through defined document templates.

## Samadhan Engineering, Kathmandu, Nepal

Aug 2020 – Nov 2020

Machine Learning Intern

- Engineered an advanced road lane detection system with real-time curvature calculations and vehicle detection.
- Participated in data preparation for road lane detection systems, contributing to the successful implementation of AI-based autopilot functionality within a simulator's racetrack environments.

#### ACADEMIC PROJECTS

## PDF-based RAG Chat Assistant using Vector Storage and LLMs

July 2024

- Developed a Retrieval-Augmented Generation (RAG) chat assistant to query PDF documents, utilizing data embedding techniques and vector storage.
- Focused on data processing for efficient querying and response accuracy.

## LinkedIn Profile Scraping Tool using LLMs

July 2024

- Developed a Retrieval-Augmented Generation (RAG) chat assistant to query PDF documents, utilizing data embedding techniques and vector storage.
- Focused on data processing for efficient querying and response accuracy.

# **Feature Toggle Detection using LLMs**

June 2024

- Developed a Retrieval-Augmented Generation (RAG) chat assistant to query PDF documents, utilizing data embedding techniques and vector storage.
- Focused on data processing for efficient querying and response accuracy.

## **College Inquiry Chatbot (Final Year Project)**

Mar 2021

- Developed a chatbot utilizing AIML and NLP techniques to address college-related inquiries.
- Implemented Wu-Palmer Similarity for accurate sentence matching between user input and responses.

### **SKILLS**

Python, Java, HTML/CSS, JavaScript R, SQL, ReactJS, Flask, FastAPI, Bootstrap, TensorFlow, PyTorch, Pandas, NumPy, Matplotlib, Scikit-learn, NLP, RoboFlow, MySQL, MongoDB, SQLite, Visual Studio Code, PyCharm, IntelliJ, Git and GitHub, Docker.

### **LANGUAGES**

English, Nepali, and Hindi

### **AWARDS AND CERTIFICATIONS**

### Full Stack Data Science Course – Become a Data Scientist (Udemy)

Jan 2022

## **Machine Learning (Coursera)**

Dec 2022

### LangChain- Develop LLM powered applications with LangChain (Udemy)

July 2024

#### **VOLUNTEER AND ORGANIZATIONAL EXPERIENCE**

## Event Organization & Team Lead, IIC Spring Carnival

Apr 2019

• Coordinated logistics, scheduling, and team efforts to deliver successful events, showcasing leadership and organizational skills.

## Project Showcase Participant, IIC Industrial Fair

Oct 2021

• Effectively communicated project objectives and achievements to industry professionals and attendees, fostering meaningful connections.