

KUSHAL RAJ SHARMA

+1 (437) 933-7042 | c0940005@mylambton.ca | Mississauga, ON, Canada | [linkedin.com/in/pythonistkushal](https://www.linkedin.com/in/pythonistkushal) | github.com/kuxall/

PROFESSIONAL SUMMARY

Aspiring Machine Learning Engineer with hands-on experience in NLP, computer vision, and full-stack AI application development. Proficient in tools such as Python, PyTorch, spaCy, scikit-learn, and LangChain, with a passion for building scalable, real-world AI solutions. Actively seeking entry-level ML and Full Stack opportunities to apply technical expertise and contribute to impactful projects.

EDUCATION

Lambton College

Certification, Full Stack Software Development

May 2024 - December 2025

Nepathya College

Bachelor's, Computer Science

June 2017 - May 2021

PROFESSIONAL EXPERIENCE

Omdena

Data Analyst

Remote

July 2023 - September 2023

- Starting from collecting the multilingual Nepali and English Languages datasets from different sources, and preprocess them
- Generating summary statistics, plotting some visualizations to identify data distribution and data anomalies
- Performing sentiment analysis which eventually helps in detecting the bias, understanding the perception
- Summarizing the key points from the EDA and present it to the group members.

Sherpa.Codes

AI Lead

Butwal, Nepal

September 2021 - May 2023

- Led a team of 20+ annotators, ensuring quality control and timely completion of data annotation projects, resulting in the creation of a high-quality labelled dataset used for training machine learning models
- Proficient in data collection (scraping) using Scrapy and text preprocessing with spaCy, enabling efficient acquisition and preprocessing of large-scale data for NLP projects
- Collaborated with cross-functional teams to prioritise data needs for machine learning models, leading to improved model accuracy and relevance in real-world applications
- Utilised supercomputer resources to optimise efficiency and reduce computation time by 50percent enabling faster experimentation and model iteration
- Conducted research and implemented findings from various papers to achieve project goals, resulting in the development of advanced AI models with state-of-the-art performance
- Guided juniors in college to solve problems using Machine Learning.

National Innovation Center

Artificial Intelligence Intern

Kathmandu 44600, Nepal

May 2021 - August 2021

- Implemented Convolutional Neural Networks (CNN) from scratch for image classification tasks, achieving an accuracy rate of 90percent on a benchmark dataset
- Reviewed and analysed research papers on Autonomous Self-Supervised Learning, leading to the identification of novel techniques that improved model performance by 15percent
- Recreated the Plant Disease Detection Model using PyTorch, reducing inference time by 30percent through model optimization techniques.

PROJECTS & OUTSIDE EXPERIENCE

Buynery - Your goto grocery shopping

Full Stack Developer

Mississauga, ON, Canada

- Developed a secure Express.js backend for handling user authentication, password hashing (bcrypt), and token-based access control (JWT).
- Enabled cross-origin resource sharing using CORS, facilitating smooth client-server communication.
- Built an interactive frontend using Bootstrap, jQuery, and Swiper to enhance UI responsiveness and visual appeal.

- Used the Fetch API to handle asynchronous client-side HTTP requests to the server.
- Implemented user-friendly features like sliders and dynamic content updates with Swiper and jQuery DOM manipulation.
- Maintained clear project structure and secure credential management for scalable deployment.

EnhanceFund – Peer-to-Peer Lending Platform

Mississauga, ON, Canada

Full Stack Developer

- Developed a full-stack peer-to-peer lending platform with role-based access for borrowers, investors, and staff using Django and REST APIs.
- Built user registration, authentication, and profile management features, enabling secure and scalable account handling.
- Designed and implemented loan application workflows with automated interest calculation and repayment scheduling.
- Enabled investors to fund loans and track returns, with real-time investment management and portfolio updates.
- Integrated Stripe for secure payment processing, including fund deposits, loan repayments, and withdrawals.
- Implemented credit score analysis and automated email notifications for onboarding, approvals, and reminders.

Digital Advertisement Classification

Remote

AI Engineer

- Built a Streamlit-based web app for classifying digital advertisements into multiple categories using machine learning.
- Used TfidfVectorizer to extract textual features and OneVsRestClassifier for multi-label classification of ad content.
- Trained and evaluated models using scikit-learn and pandas, ensuring efficient data preprocessing and performance tuning.
- Serialized the final model using pickle for fast deployment and real-time inference within the Streamlit interface.
- [Link to project](#)

Plant Disease Detection

Remote

Internship

- Developed a web-based AI system to detect plant diseases from leaf images using a Convolutional Neural Network (CNN) built with PyTorch.
- Loaded and preprocessed the dataset of diseased and healthy leaves using PIL for image handling.
- Built a lightweight Flask web app with a clean UI using HTML, CSS, and Bootstrap, allowing users to upload images for diagnosis.
- Integrated real-time prediction display, with model outputs shown dynamically upon image submission.
- Utilized pandas for organizing prediction logs and supporting analytical operations.
- Managed dependencies to ensure reproducibility and smooth deployment.
- [Link to project](#)

IGBot

Remote

ML Engineer

- Developed a Python tool to scrape Instagram profiles by city from Google search results and store data in structured CSVs.
- Automated personalized message generation using OpenAI API, sending DMs via Instabot across multiple Instagram accounts.
- Employed environment variable management with dotenv for secure handling of Instagram and OpenAI credentials.
- Documented the system setup and usage clearly for ease of deployment and maintenance.
- [Link to project](#)

SKILLS

Skills: Jupyter, python, SpaCy, Pandas, NumPy, Pytorch, html, css, git, Computer Vision, Natural Language Processing (NLP), Data Science, Python, Git, HTML/CSS, Data Analysis, OpenCV, langchain, LLMs, openAI, Node.js, Bootstrap, jQuery, streamlit, google generative ai, PIL, Flask, Scikit-learn, Django, postgresSQL, Celery, REST APIs, Stripe

Languages: Hindi, Nepali, English

AWARDS AND ACHIEVEMENTS

Awarded as the "Top 5 finalist of STARTUP AND IDEA FEST 2022 Lumbini Province" by Hon'ble Minister Tilak Sharma, the Ministry of Internal Affairs of Lumbini Province.