Nishant Uprety

+977-9862776763 | me.nishant2002@gmail.com | nishantuprety.com.np

Education

Pulchowk Campus, IOE — Kathmandu
Master's in Data Science and Analytics (Ongoing) — *Expected Graduation: 2027*

Thapathali Campus, IOE — Kathmandu
Bachelor's in Computer Engineering (74.91%) — *April 2024*

Experience

9epoch.ai — Melbourne, Australia (Remote)
Python Developer — *September 2024 – Present*

- Developed and operated a production multimodal LLM pipeline that converts broker emails, PDFs, and images into structured financial intelligence, including companies, recommendations, target-price changes, sentiment, and actionable alerts.
- Built and deployed an authenticated **Model Context Protocol (MCP)** server enabling AI clients to securely access financial databases and server-side resources through typed, validated tools.
- Enhanced an AI-generated **Morning Note** with ranked trade ideas, expected-move analytics, broker alerts, and controlled historical context for investment workflows.
- Improved LLM reliability and efficiency through structured outputs, deterministic validation, multimodal analysis, model routing, prompt caching, parallel inference, and regression testing.
- Built real-time ETL pipelines using **Python, AWS Lambda, ECS, SQS, ElastiCache, PostgreSQL, and CDK** to ingest and deliver financial data for downstream analytics.
- Backtested NLP-based broker signals against historical market-share data using statistical significance tests and risk-adjusted performance metrics.

NIC Asia Bank — Kathmandu, Nepal
Software Development Intern — *May 2024 – August 2024*

- Implemented fuzzy-search algorithms and dimensionality-reduction techniques on transaction data to improve search and analysis.
- Developed a full-stack ticket-resolution platform for ticket aggregation and workflow management using the Freshdesk API.

Technical Skills

AI/ML: LLM tool calling, MCP, RAG, multimodal analysis, structured outputs, FAISS, Mistral, scikit-learn
Languages/Data: Python, SQL, PostgreSQL, pandas, Jupyter Notebook
Cloud/Engineering: AWS Lambda, ECS, SQS, API Gateway, ElastiCache, CloudWatch, CDK, Docker, Git

Projects

Customer Ticket Classification

- Used Mistral-7B-Instruct for translation and a hosted LLM for ticket categorization, exposing API endpoints for CRM integration.

Retrieval-Augmented Generation (RAG) Chat Application

- Built a Streamlit PDF question-answering application using FAISS for semantic retrieval and document-grounded responses.

Nepali Plagiarism Detection

- Developed a Nepali POS tagger and plagiarism-detection system using a Nepali Samdakosh synonym set, implemented for TUCL's Nepali thesis collection.

Awards and Certificates

AWS Data Engineering; **AWS Cloud Architecting**; **Best Final Year Project**, 2nd Thapathali Graduate Conference

Research Papers

Heart Attack Contribution Factors using ML and LIME – Paper
Data Balancing for Bank Loan Default Risk Prediction – Paper