

Arpan Pandey

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SUMMARY

Software Developer specializing in AI Machine Learning, with experience in Generative AI, Large Language Models, Retrieval-Augmented Generation, and Full-Stack Development. Built end-to-end AI systems including a Resume Intelligence Platform, Sales Automation Bot, Stock Forecasting System, and NLP-based Text Classifier. Skilled in Python, LangChain, Django, Streamlit, TensorFlow, and PyTorch.

EDUCATION

Herald College Kathmandu

BSc (Hons) Information Technology (BIT)

Kathmandu, Nepal

2024 – 2027 (*Expected*)

TECHNICAL SKILLS

Programming Languages: Python, SQL, JavaScript, HTML, CSS

Machine Learning & AI: Large Language Models (LLMs), AI Agents, Prompt Engineering, Retrieval-Augmented Generation (RAG), Conversational AI, Generative AI, LangChain, Vector Databases, Sentence Transformers, NLP, ARIMA, LSTM, Hybrid ARIMA-LSTM, CNN, Scikit-Learn, TensorFlow, Keras, PyTorch, Feature Engineering, Time-Series Forecasting, Image Classification, Text Classification, Model Evaluation

Frameworks: Django, Streamlit, Bootstrap, Tailwind CSS

Databases: MySQL, SQLite

Developer Tools: Git, GitHub, VS Code, Jupyter Notebook, OpenAI API, Groq API, REST APIs, Zapier, Make (Integromat), Workflow Automation

Libraries: Pandas, NumPy, Matplotlib, TensorFlow, PyTorch

Data and Productivity: Microsoft Excel, Google Sheets

PROJECTS

AI Sales & Customer Support Automation Bot | *Python, Streamlit, Groq API, CRM Automation, LLMs* | [GitHub](#)

- Developed an AI-powered Sales and Customer Support Automation platform using Large Language Models (LLMs) to automate customer interactions, lead management, and business workflows.
- Built an intelligent customer support chatbot capable of handling customer inquiries, FAQ responses, and real-time conversational assistance.
- Implemented automated lead qualification and lead scoring mechanisms to classify prospects into Hot, Warm, and Cold leads based on customer responses.
- Developed AI-powered personalized sales email generation and follow-up automation to improve customer engagement and conversion rates.
- Designed and integrated a CRM dashboard with SQLite for customer data management, lead tracking, analytics, and CSV export functionality.
- Applied Prompt Engineering, Conversational AI, Workflow Automation, and LLM integration techniques to streamline sales and customer support operations.

AI Resume Assistant | *Python, Streamlit, Groq API, NLP, LLMs, SQLite* | [GitHub](#)

- Developed an AI-powered Resume Assistant that analyzes resumes and job descriptions using Large Language Models (LLMs) and Natural Language Processing (NLP) techniques.
- Implemented ATS score calculation, semantic resume-job matching, skill gap analysis, and personalized career development recommendations.
- Built AI-powered modules for resume review, cover letter generation, internship application email generation, and interview question preparation.
- Integrated a conversational Resume Chatbot capable of answering resume-specific queries and providing personalized career guidance.
- Developed PDF report generation and SQL-based SQLite data storage for resume analysis tracking, structured data retrieval, and analytical reporting.

- Designed prompt-driven workflows that transform user inputs into structured AI-generated reports while improving response quality and reducing hallucinations.

NEPSE AI Stock Forecasting System | *Python, Django, ARIMA, LSTM, Machine Learning* | [GitHub](#)

- Developed an AI-powered financial forecasting platform for analyzing Nepal Stock Exchange (NEPSE) securities, supporting data-driven investment analysis and market trend evaluation.
- Implemented ARIMA, LSTM, and Hybrid ARIMA-LSTM forecasting models for time-series prediction.
- Performed data preprocessing, feature engineering, and model evaluation using RMSE, MAE, and MAPE metrics.
- Compared forecasting performance across ARIMA, LSTM, and Hybrid ARIMA-LSTM models.
- Built dashboards for stock analysis, prediction visualization, and historical trend monitoring.
- Integrated authentication, admin panel, and feedback modules using Django.

Hate Speech Detection and Text Classification | *Python, NLP, Scikit-Learn, TensorFlow* | [GitHub](#)

- Developed a Natural Language Processing (NLP) system for hate speech detection and text classification.
- Performed text preprocessing including tokenization, stop-word removal, stemming, and feature extraction.
- Applied machine learning algorithms to classify textual content into predefined categories.
- Evaluated model performance using accuracy, precision, recall, and F1-score metrics.
- Built an end-to-end text classification pipeline for automated content analysis and moderation.
- Utilized NLP techniques to support intelligent text filtering and sentiment understanding.

CERTIFICATIONS

- Mathematics for Machine Learning: PCA
- Mathematics for Machine Learning: Linear Algebra
- Mathematics for Machine Learning: Multivariate Calculus

RELEVANT COURSEWORK

- Artificial Intelligence
- Machine Learning
- Data Structures and Algorithms
- Database Systems
- Software Engineering
- Data Analytics

LANGUAGES

- English (Professional Working Proficiency)
- Nepali (Native)
- Hindi (Professional Working Proficiency)