Prabhat Ghimire

📞 (+977 9840264502) | ✉ prabhatghimire7@gmail.com | PrabhatGhm7 | prabhatghm.com.np | Prabhat

Education

Pokhara University, School of Engineering	Bachelor of Computer Engineering	2021 – 2026

Experience

Research & Development Intern	YHH IT Solutions	May 2025 – Present

- Conducted requirement analysis and early-stage project planning and documentation
- Designed and prepared system diagrams to support architectural clarity
- Performed technical research and assisted in the design and testing of software prototypes
- Utlized data-driven initiatives using machine learning and software development

Python/ML Intern	Together We Can, Nepal	2023 – 2024

- Built a Django-based RESTful API with 95% uptime and reduced DB query latency by 15%
- Created a predictive model pipeline that achieved 82% accuracy
- Pioneered feature extraction algorithms processing 20+ key metrics
- Enhanced model training efficiency by 40% through parallel processing

Projects

Bloodbuddy (Django-based platform)

- Spearheaded full-stack platform connecting 200+ donors with recipients
- Structured scalable chat system handling 100+ concurrent users with <100ms latency
- Crafted geolocation-based donor matching reducing response time by 50%

Race Analytics: A Machine Learning Approach to Predict F1 Champions

- Architected machine learning pipeline processing 25,000+ race statistics
- Innovated custom feature engineering boosting prediction accuracy by 15%
- Executed performance optimization reducing training time by 20%

RAG Chatbot for PDF Question Answering

- Created vector store using ChromaDB for fast, accurate semantic retrieval
- Integrated `google/flan-t5-large` for generating context-aware answers to user queries
- Designed an interactive chat interface enabling real-time question-answering over uploaded PDFs

YouTube Clone (Django)

- Built a scalable video streaming system, supporting high-quality video uploads and playback
- Optimized database with a caching system, reducing page load time from 4 seconds to 2 seconds
- Enhanced security with Oauth authentication, reducing unauthorized access attempts

Skills

Programming Languages: Python

Core Machine Learning/ AI: Scikit-learn, Pandas, NumPy, Matplotlib, Seaborn, Jupyter Notebook

Deep Learning & Frameworks: TensorFlow, Keras, PyTorch, CUDA , YOLOv8

Natural Language Processing (NLP): Transformers, Hugging Face, RAG (Retrieval-Augmented Generation), Text Classification, Tokenization

Computer Vision: OpenCV, Image Preprocessing, Object Detection

Web Development: Django, Django REST Framework (DRF)

Databases: MySQL, SQLite

Deployment & DevOps: Heroku, AWS EC2 (Basic knowledge), Git, GitHub

Tools & Platforms: MLflow, draw.io, Lucidchart, Google Colab, VS Code