Ashok Koirala

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Professional Summary

Third-year BSc (Hons) Computer Science with Artificial Intelligence student at Sunway College. Passionate about software development and machine learning, with hands-on experience in building full-stack and ML systems using Python, Django, FastAPI, scikit-learn, Docker and Airflow. Recognized for innovation and teamwork in national tech competitions. Seeking internship opportunities to apply and expand technical and problem-solving skills.

Education

Sunway College, Kathmandu — *BSc (Hons) Computer Science with Artificial Intelligence*
Mar 2024 – Present
Relevant coursework: Machine Learning, Data Structures, Databases, Web Development, AI Fundamentals

Fluorescent Secondary School, Kathmandu — *Grade 12*
Jul 2019 – Aug 2021

Technical Skills

Languages: Python (advanced), Java, PHP, SQL
Frameworks & Web: Django, FastAPI, Streamlit, HTML, CSS, JavaScript (basic), React(basic)
Machine Learning & Data: scikit-learn, MLflow, Evidently, Feature Engineering
DevOps & Tools: Docker, Apache Airflow, Git, Redis
Databases: MySQL,PostgresSQL
Data Visualization: Power BI, Pandas
Other: IoT basics, NLP fundamentals, Agile & Design Thinking

Selected Projects

MLOps (Diabetes Prediction System)

- Built an end-to-end ML system using XGBoost with model tracking in MLflow and data drift detection via Evidently.
- Automated retraining and ETL with Apache Airflow; deployed model through FastAPI and Docker containers.
- Integrated Redis caching for faster inference and built a user-friendly frontend with Streamlit.

Blood Management System

- Developed a comprehensive PHP + MySQL web app with ~40 pages for donor and inventory management.
- Implemented CRUD operations, role-based authentication, and dashboard analytics.

Innovative Smart Parking System

- Created an IoT-based parking solution integrating ML detection and live web dashboard for real-time monitoring.
- Built with Python, IoT sensors, and front-end visualization tools.

AI Notification System

- Developed a system that allows users to plan their day with an LLM chatbot, save reminders that trigger voice-activated notifications and use voice commands to create tasks or reminders seamlessly.

Achievements

- **Runner-up, DAV CodeFest 2025**: Team *Neuronode* secured 2nd place among national participants.
- **Semifinalist, ICT Awards 2025**: Recognized for *federated learning on healthcare for generalized model* project.
- **IBM Design Thinking Certified (2024)**: Applied human-centered innovation in technology projects.

Certifications & Training

- **Kaggle Learning Path – Data Science & Machine Learning (2024)**
  Completed full series of Kaggle micro-courses covering *Python, Pandas, Data Cleaning, Data Visualization, SQL (Intro & Advanced), Machine Learning (Intro & Intermediate), Feature Engineering.*
- **IBM Design Thinking (2024)**

Additional Information

Languages: English (fluent)
References: Available on request