# Aayesha Nakarmi

# **Al Student and Developer**

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Kathmandu, Nepal

#### **SUMMARY**

I'm a final-year Computing with AI student at Islington and currently working as a Junior AI Developer at Danson Solutions Pvt. Ltd, gaining hands-on experience on tools empowering AI. I am eager to deepen my knowledge, explore innovative AI applications, and contribute to projects that solve real-world challenges.

# **WORK EXPERIENCE**

# Junior Al Developer, Danson Solutions Pvt. Ltd.

Nov 2024 - Present

- Developed Python-based backend APIs to power AI tools, including chatbots and generative AI
- · Worked with LLMs, text-to-speech, and image generation models
- · Crafted and refined prompts to optimize language model outputs for specific tasks

# Python Intern, Verisk Nepal

July 2024-Oct 2024

- Fine-tuned Gemma models for domain-specific (medical) question answering tasks.
- Studied transformer-based LLM architectures and their real-world applications.
- Built and experimented with Retrieval-Augmented Generation (RAG) for enhancing QA performance.

#### **EDUCATION**

**BSc (Hons) Computing with Artificial Intelligence** 

2022-Present (Final year)

Islington College, Kamalpokhari, Kathmandu

SLC (+2, Science) 2020-2022

KMC(Kathmandu Model College), Bagbazar, Kathmandu

## **SEE(Secondary Education Examination)**

2020

Swarnim School, Dallu Aawas, Kathmandu

#### ADDITIONAL INFORMATION

Technical Skills:

a. Programming Languages: Python (Django, Flask, FastAPI), Java EE

b. Relational Databases: MySQL, SQLite c. Fronend Development: HTML, CSS, JS

- d. Machine Learning and Al: LLMs, Al Algorithms, CNN, Transfer Learning
- e. Data Analysis: Python (Pandas, NumPy, etc.), Power Bl
- Soft Skills: Communication & Presentation skills, Problem-Solving, Adaptability, Time Management
- Certifications: <u>AWS Academy Graduate AWS Academy Cloud Foundations</u>,

#### **ACADEMIC AND PERSONAL PROJECTS**

#### • Quizard: AI-Powered Learning Assistant:

- Tech Stack: Python, HuggingFace Transformers (T5), PyTorch, Django, SQLite, HTML/CSS/JS
- Al-powered web app that turns study materials (PDFs, Docs, PPTs) into quizzes, MCQs, and adaptive flashcards using fine-tuned T5 Transformers, Implemented retrieval practice and spaced repetition for active learning, feedback engine for quizzes and instant MCQ evaluation.

# • Dog Breed Classification System: <u>AayeshaNakarmi/Dog-Breed-Detection-Tsinghua-CNN</u>

- Tech Stack: PyTorch, Kaggle, CNNs, NumPy, Matplotlib
- Developed a ResNet-style CNN from scratch for fine-grained classification of dog breeds using the Tsinghua Dogs dataset.

# • Song Popularity Prediction: <u>AayeshaNakarmi/Song-Popularity-Prediction</u>

 Developed a machine learning model to predict song popularity using MusicOSet Dataset on a scale of 0-100 and classify songs as "popular" or "not popular" using regression, classification, and ensemble techniques.

## • House Price Prediction: <u>AayeshaNakarmi/House-Price-Prediction</u>

 Developed a machine learning model to predict house prices in King County, USA, with feature engineering, using regression techniques and ensemble techniques.

#### Al Salary Analysis: <u>AayeshaNakarmi/Salary-Analysis-in-Al-field</u>

Conducted salary analysis in the Al field using Pandas, NumPy, Matplotlib, and Seaborn.
Prepared and cleaned data, performed statistical analysis, and presented findings in a detailed technical report.

## • Game Platform (Java EE): <u>AayeshaNakarmi/GameRush</u>

Developed a Java EE-based game platform with CRUD operations for game management.
Implemented features for user authentication, profile management, and game browsing.

# • Stationery Inventory Management (Java): <u>AayeshaNakarmi/InkSpire-Stationery-Management</u>

 Developed an application for managing stationery inventory, including CRUD operations, search functionality, and sorting using selection sort and binary search algorithms.

#### Carbon Footprint Calculator (LLM): <u>AayeshaNakarmi/Squiward-Al-Crusade</u>

• Created an Al-driven tool to estimate carbon emissions and provide reduction recommendations using Clarifai, Langchain, and Llama-2.

#### Smart Agriculture System (IoT):

- Tools and Tech: Arduino IDE, ThingSpeak, Fritzing, ESP32, DHT11, Ultrasonic sensor
- Built an ESP32-based monitoring system to track environmental conditions, send data to ThingSpeak, and provide real-time alerts to users.