# Dikshanta Chapagain

#### **Education**

### Softwarica College of IT and E-Commerce (Coventry University)

Kathmandu, Nepal

Bachelor of Science (Hons) in Computer Science with Artificial Intelligence

Expected 2025

Pioneering student in inaugural AI program at Softwarica College

Relevant coursework: Machine Learning, Natural Language Processing, Data Structures

### **Professional Experience**

Web Developer

July 2024 - January 2025

Keywi Marketers Lazimpat, Kathmandu

- Developed and maintained 10+ responsive websites using JavaScript, Node.js, and Tailwind CSS
- Implemented SEO best practices, improving client website traffic by 35% on average
- Reduced website load times by 40% through performance optimization techniques
- Collaborated with cross-functional teams to deliver projects 15% ahead of schedule

### **Technical Projects**

### **Tripo - Real-time Travel Navigation Platform**

March 2025

- Developing scalable backend architecture using FastAPI and WebSockets for real-time communication
- Currently implementing Geoapify API integration for dynamic route optimization
- Designing PostgreSQL database schema to handle location data and user interactions
- Setting up CI/CD pipeline for automated testing and deployment

# **Palmer Penguins Classifier Deployment**

March 2025 - April 2025

- Successfully deployed the Palmer Penguins classification model using FastAPI
- Achieved consistent 98% accuracy matching local test results in production
- Implemented model versioning and performance monitoring system
- Containerized application using Docker for cross-environment deployment

# DaktarSaab - Healthcare Assistant Android App

June 2025 - Aug 2025

- Developed a full-featured Android application in Kotlin to assist patients with healthcare needs
- Implemented Firebase Authentication for secure login and signup
- Built a Dashboard Activity for smooth navigation and feature access
- Integrated Google Maps API to locate nearby hospitals and pharmacies
- Designed and deployed an AI-powered chatbot with voice interaction for instant patient support
- Delivered a production-ready healthcare assistant app with scalable architecture

## **Code Sika Learning Platform**

December 2024 - February 2025

- Developed Java-based desktop application for programming education
- Implemented SQLite database with user progress tracking features
- Designed Swing-based UI that reduced onboarding time by 30%
- Supported three programming languages with interactive coding exercises

### Tuberculosis X-Ray Prediction API - Deep Learning & FastAPI

May 2025 - July 2025

- Built a Convolutional Neural Network (CNN) in PyTorch to detect Tuberculosis from chest X-ray images
- Designed a FastAPI-based REST API to serve real-time predictions with a user-friendly HTML/CSS/JS frontend
- Implemented image upload functionality where users can submit X-rays and instantly receive Normal/TB Positive results
- Trained and evaluated the model using accuracy, confusion matrix, precision, recall, and F1-score
- Delivered an end-to-end system combining deep learning, backend APIs, and frontend integration

# FuturePathFinder - Career Recommendation System

July 2025 - August 2025

- Developed a Random Forest Classifier to analyze student data and recommend potential career paths
- Performed data cleaning, feature engineering, and visualization (feature importance, heatmaps, pairplots)
- Built an interactive FastAPI web app with a modern HTML/CSS/JS frontend for real-time predictions
- Trained and deployed the model (random\_forest\_model.pkl) with support for scalable inference
- Delivered an end-to-end ML pipeline combining data preprocessing, model training, and deployment

### **Technical Skills**

**Programming Languages**: Python (Advanced), Java (Intermediate), JavaScript (Intermediate), SQL (Intermediate), C# (Basic)

Web Technologies: FastAPI, React.js, Next.js, Node.js, Tailwind CSS, REST APIs, WebSockets

Artificial Intelligence: NLP, Transformers, Scikit-learn, Pandas, Model Deployment

**Databases**: PostgreSQL, SQLite, Database Design, Query Optimization **Tools & Platforms**: Git, Docker, Vercel, Postman, CI/CD Pipelines, Linux

Soft Skills: Problem Solving, Team Collaboration, Agile Development, Technical Documentation