

Pratigya Paudel

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EDUCATION

Thapathali Campus, IOE

Bachelor of Computer Engineering (CGPA: 7.95)

Thapathali, Kathmandu

Nov. 2019 – Apr 2024

EXPERIENCE

AI/ML Engineer

Icebrkr AI Solutions

March 2024 – Present

Kalanki, Kathmandu

- Leveraged advanced LLMs to develop and deploy AI solutions, optimizing their performance through strategic prompt engineering.
- Specialized in the fine-tuning of machine learning models to enhance accuracy and performance, coupled with extensive experience in data engineering to support robust model development.
- Collaborated on patent writing and developed architectural flow solutions for complex AI/ML problems, ensuring innovative and effective solutions.

IT Specialist

Fast Track Engineering Institute

Jan. 2024 – Present

Bagbazar, Kathmandu

- Designed, developed, and deployed a robust website for an engineering institute using Django as the backend, ensuring seamless functionality and user experience.
- Currently responsible for maintaining the website's codebase, implementing updates, and adapting the platform to meet the institute's evolving needs and requirements.

Backend Developer

Perigee Solutions

Feb 2023 – Feb 2024

Kathmandu, Nepal

- Contributed to multiple projects by developing dynamic websites using Django

PROJECTS

Medi-Bot | Python, Flask, Langchain, Pinecone, META LLAMA 2

2024

- Provides real-time medical advice and symptom analysis through natural conversations utilizing Meta Llama2
- Built with Flask and utilizes Pinecone for fast retrieval and storage
- Designed with LangChain, ensuring modularity and scalability.

Fast Track Engineering Institute Web App | Python, Django, Postgres, Javascript, Git

2024

- Securely stores and manages user information for a personalized experience.
- Facilitates exam scheduling and distributes lecture videos and study materials through the platform.
- Provides detailed statistics and performance insights from exam results.

Ez-Crossword | Python, Image Processing, Tesseract, Django, Bootstrap, Pytorch, Transformer, Fast API

2024

- Implemented OCR to extract grid information and clues from images of crosswords with varying grid sizes.
- Utilized advanced transformer models for generating and solving crossword puzzles.
- Generated American and British-style crosswords of different grid sizes.

Automatic License Plate Detection | Python, YOLO, Django, Postgres, Javascript, Git

2023

- Implemented YOLO for accurate detection of license plates and character recognition.
- Developed a web application enabling users to upload videos, process media, and seamlessly retrieve results.

Implementation of Machine Learning Algorithms

2023

- Digit Classifier- ANN** Designed and trained an ANN for digit recognition, experimenting with various configuration
- Principal Component Analysis** Developed flower classification model and wine classification model using PCA
- Decision Trees** Implemented decision trees for breast cancer detection
- Naive Bayes Classifier** Predicted Obesity based on different attributes using naive bayes classifier
- K Nearest Neighbour** Predicted dropout and success rate of undergraduate students using KNN algorithm
- KD Tree** Conducted a comparative study of ball-Tree and KD-tree structures for optimizing KNN performance over brute force methods

NutriMate: Meal Recommendation System | *Python, Django, Postgres, KNN, Javascript* 2023

- Offers tailored meal plans, grocery lists, and recipes for Nepali cuisine based on dietary needs and preferences.
- Utilizes Nearest Neighbors (NN) for accurate food recommendations considering allergies, intolerances, and health goals.

Cinephile Choose: Movie Review System | *C++, QT, SQLite* 2023

- Developed a dynamic platform enabling users to explore movie information categorized by genre, release date, and popularity. .
- Users can also provide reviews and ratings for movies, and view trailers.

TECHNICAL SKILLS AND INTERESTS

Languages: Python, C/C++, JavaScript, HTML/CSS

Frameworks: Django, Langchain, PyTorch, Scikit-learn

Developer Tools: Git, VS Code, GitHub

Libraries: Python Libraries, AI/ML-related Libraries

DBMS: PostgreSQL

Course-related Works: Data Structure and Algorithms, Operating Systems, Object Oriented Programming, Database Management System, Software Engineering

Soft Skills: Leadership, Problem-Solving, Communication, Time Management

Areas of Interest: Artificial Intelligence/Machine Learning, Data Engineering and Analysis