# Basab Jha

Fullstack Developer/ML Engineer
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### **EDUCATION**

Tribhuwan University

Bachleors of Science in Computer Science And Information Technology

Kathmandu, NP

Feb 2023 - Present

**Relevant Courseworks:** Data Structutres and Algorithms, Python, Database Management Systems, Discrete Mathematics, Computer Architecture, Artificial Intelligence, theory of Computation

Languages: Python, Javascript, C, Rust, Julia

Database: Postgres, MongoDB

Tools: git, Github, Gitlab

Additional: Supabase, Firebase,

Linux(Manjaro/Arch/Ubuntu/CentOS)

Web: Next.js, Django, React, Vue.js,

Node.js, Express

Machine Learning: Tensorflow, Scikit-learn,

Pandas, Keras

## **EXPERIENCE**

**KRUTRIM** Remote

Research/ML associate

July 2023 – Aug. 2023

- Focused on data preprocessing, feature extraction, and model training using Python and TensorFlow.
- Conducted extensive data analysis to identify patterns and trends in large datasets, utilizing tools such as Pandas, NumPy, and Matplotlib
- Worked closely with senior researchers and data scientists, contributing to team meetings and presenting findings

olakrutrim.com

#### Himalayan Academy Boarding School

Nov. 2023 - Jan. 2023

Bhaktapur, NP

Website Developer

- Redesigned The HABS website to be more user-friendly, increasing available resources for staffs and student
- Used MongoDB and NodeJS to setup a server side system for Hosting files, managing userdata and handling user requests, enhancing the user-experience

⇔ habs.edu.np

Delta Creation Bhaktapur, NP

Backend Developer Intern

Sept. 2023 - Nov. 2023

- Optimised API calls and structure to decrease memory usage by 50% and sped up query time by 45%
- Used Javascript, MongoDB and REST APIs, to allow users to modify and receive notifications upon deal updates and dealership messages
- Helped develop internal tools to automate end-to-end user testing utilising Django and JWT, increasing coverage by 70%
- Designed a webpage utilising React, HTML/CSS and Tailwind and connected it to cloud services to provide an interactive platform for users

deltacreation.com.np

#### PERSONAL PROJECTS

GEM-1o July - Present

Generative Expression Model (GEM) is an SLM designed for creative writing and humanlike conversations, developed from scratch with a focus on lightweight architecture and specialized language modeling. The model was built using a custom architecture, trained on diverse datasets, and fine-tuned for specific tasks. Current phase includes model evaluation and deployment.

#### **SpotifyDownloader**

March 18 2024 – July 2 2024

A Web app that allows users to download tracks/albums from Spotify to their device, built with Next.js, PostgreSQL, Supabase & TailwindCSS.

spotifydownloader-smoky.vercel.app

**Breadit** April 8 2024 – June 17 2024

A Community a website similar to Reddit where users can view and share links or text posts for others to see, built using Next.js, Prisma, PostgreSQL, Supabase & TailwindCSS. Users can create their own community (Subreadit), post (links, images,texts) and interact with it (comment/upvote/downvote).

breadit-wheat-vercel.app

**HABS** 

Dec. 17, 2023- April 12 2024

A Website with features like contact form, appointment-ticketing system and Admission portal I built for a school with PEVN stack (PostgreSQL, Express.js,Vue.js,Node.js) and Supabase.

⇔ habs.edu.np

**PassSentinel** 

Oct. 20, 2023 - Nov. 4, 2023

A simple password manager made with Python and libraries like 'tkinkter', 'bcrypt', 'fernet' and SQLite for database.

Users can automatically add, update a password and delete it. Also can be integrated as a browser extemsion.

PassSentinel (github)

#### **CERTIFICATIONS**

- Introduction To Machine Learning
- Machine Learning With Python
- NLP Language Detection
- Introduction to Linux
- Getting Started with Rust

#### AREAS OF INTEREST

- Natural Language Processing
- Neural Networks
- Linux
- Research & Development
- GAN/RAG