Sugam Pokharel

Computer Engineering Graduate

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Summary

Enthusiastic Computer Engineering student with a strong foundation in Machine Learning, Natural Language Processing (NLP), and Full-Stack Web Development. Passionate about building intelligent systems and solving real-world problems using modern technologies. Demonstrated ability to manage projects involving web, AI, and data science solutions.

Education

2021 – 2025	**Bachelor of Computer Engineering**, *Thapathali Engineering Campus*, Tribhuvan University
Relevant Coursework	Machine Learning, Data Structures, Database Systems, Software Engineering

Skills

Languages	Python, JavaScript, SQL, HTML/CSS
Frameworks	TensorFlow, PyTorch, React, Node.js, Express
Web	MERN stack, REST APIs, Full-stack integration
GIS	QGIS, ArcGIS, Leaflet.js, GeoJSON
Data Tools	Excel, Power BI, Pandas, Matplotlib
Concepts	ML algorithms, Neural Networks, NLP, Spelling Correction, Classification Models

Projects

2023	**MERN Website**, Developed a full-stack web app using MongoDB, Express, React, and Node., Repo
2024	**Nepali Spelling Correction**, Developed a Nepali spelling correction model using Transformer architecture for NLP text correction.
2024	**Amazigh Numbers Classification**, Built an Artificial Neural Network to classify Amazigh script digits using image data., Repo
2024	**ML Models from Scratch**, Implemented various ML models (Naive Bayes, ANN) without external libraries to understand fundamentals., Repo
2025	**Nepal Hydropower Map**, Built an interactive map visualizing Nepal's hydropower infrastructure using geospatial tools and Leaflet.js., Online Map
2025	**Gallic War Map**, Created an interactive online map for Julius Caesar's Gallic Wars using historical data and mapping technologies. Performed spatial data creation using offline sources., Online Map
2025	**Unified Devanagari Rendering Engine for Nepali Language**, Contributed to PDFBox's rendering of Devanagari text, especially for GSUB and GPOS. Published a recommendation to Font Developers for glyph inclusion, subsitution and positioning.
2025	**Sans Hugo theme**, Developed and published a Hugo theme from scratch. Hugo is a static site generator that converts user's markdown files to web content. Sans is a minimal theme for Hugo., Link

2025	**Markdown to Site npm library**, Created and published a npm library for creating user-customizable websites with only node js with only vanilla js and css. Converts your markdown to site. , Link

Certifications & Achievements

Academic Projects	Successfully completed multiple software and AI-related academic projects.
Hackathons	Participated in local hackathons and student-led innovation programs.
Online Courses	Completed MOOCs related to AI and Web Development on Coursera and edX.

Languages

English	Fluent	*Reading, Writing, Speaking*
Nepali	Native	

Interests

Professional	Machine Learning, Natural Language Processing, Web Development
Personal	Map-making, History, Language Technology, Open-source Contributions