

Sapana Subedi

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EXPERIENCE

Kantipur Engineering College, Putalisadak Kathmandu

Guest Lecturer BIT 5th Semester – Web Technology

Jan 11, 2026 – Jan 16, 2026

- Delivered a one-week course on web basics, web protocols, and free/open-source software, setting daily learning goals and hands-on exercises.
- Taught HTML structure, tags, forms, and page layout, helping students understand and build functional web pages.
- Introduced JavaScript basics, including variables, events, DOM manipulation, and form validation, with live coding examples.
- Conducted lab sessions on designing responsive web pages using CSS, guiding students step-by-step from blank files to complete projects.
- Assisted students in debugging HTML, CSS, and JavaScript errors, providing practical solutions and real-time feedback.

Wiseyak, Naxal Kathmandu

Python Developer

Mar 2021 – Feb 2023

- Spearheaded the development of user-friendly healthcare application interfaces by crafting views and templates using Django's view controller and template language.
- Utilized Python's extensive libraries and frameworks to enhance the functionality and performance of the application.
- Involved in developing methods for Create, Read, Update, and Delete (CRUD).
- Demonstrated expertise in database management by efficiently handling PostgreSQL databases through Django ORM queries and executing MySQL queries for optimal data retrieval.
- Provided leadership within the team by overseeing junior members, conducting comprehensive code reviews, and ensuring project alignment with established objectives.

Swastha Naari, Kathmandu

Co-Founder

Dec 2019 – Jan 2023

- Conceptualized and proposed an Antenatal Care (ANC) tracker to monitor ANC visits for pregnant women in marginalized communities of Nepal.
- Honored with the prestigious Sujata Baskota Changemakers Award for pioneering initiatives aimed at improving healthcare access and promoting social empowerment in underserved regions.
- Drafted, revised, and enhanced training materials for proposal development and writing.
- Achieved recognition as one of the top two finalists in the Generation Unlimited Challenge from Nepal.

Karkhana, Kathmandu

Web Developer Intern

May 2019 – Nov 2019

- Completed a six-month internship program focused on practical application of web development skills.
- Developed a web-based application for an online quiz platform using Laravel, PHP, and MySQL database technologies.
- Collaborated with a small team to successfully design, build, and launch the platform, demonstrating effective teamwork and project management abilities.

PROJECTS

Breast Cancer Data Analysis

<https://github.com/subedisapana/breast-cancer-data-anlysis-svm>

- Applied machine learning techniques to build a classifier for predicting breast cancer diagnoses (malignant or benign) using the Support Vector Machine (SVM) algorithm.
- Performed data preprocessing and feature selection on the Breast Cancer dataset from Scikit-learn.
- Optimized model performance by tuning hyperparameters (C and Gamma) using GridSearchCV.

Email On Voice

github.com/subedisapana/emailonvoice-django

- Designed the user interface (UI) and user experience (UX) of the web-based application to ensure accessibility and ease of use for visually impaired users.
- Implemented the feature that allows users to compose and send emails within the application, integrating it seamlessly with the UI.
- Developed the functionality using Python libraries to convert text input, such as email content, into speech output, enhancing accessibility for users who rely on auditory feedback.

Sanketic Lipi

github.com/subedisapana/SanketicLipi

- Utilized Java programming language to develop the Android application, implementing functionalities for real-time detection and recognition of static hand gestures as NSL using machine learning algorithms.
- Implemented the feature to convert recognized NSL gestures into Nepali text within the application, enabling users to communicate effectively through written language.

LANGUAGES AND TOOLS

Languages: Python, C, C++, SQL, Agile, NumPy, Pandas, Plotly (Exploratory Data Analysis), Web App Development, HTML5, CSS, JavaScript, GitHub, Basic Matlab Functions (Image Processing)

Frameworks: Bootstrap, Django, Jupyter Notebook

CERTIFICATIONS

Social Entrepreneurship Workshop

Generation Unlimited Youth Challenge

June 2020

- Completed an intensive 5-day workshop focused on social entrepreneurship, gaining comprehensive insights into innovative business models for social impact.
- Collaborated with peers on real-world case studies, honing problem-solving, and teamwork skills in the context of social enterprises.

Sujata Baskota Changemakers Award

Women LEAD Nepal

Aug 2019

- Demonstrated proactive engagement with emerging industry trends by pitching innovative solutions for healthcare enhancement through technology, aligning with the organization's mission to leverage digital advancements for improved patient care and community health outcomes.

Best Idea Award Yomari Code Camp

LOCUS

Feb 2019

- Demonstrated creativity, problem-solving skills, and technical proficiency by proposing an innovative solution within a competitive coding environment.

TRAINING

Women Leaders in Technology — WLiT Fellow 2018-19

Oct 2018 – April 2019

- Annual five-month fellowship award to sixteen female students of technology in Kathmandu.
- Training in Project management, Leadership capabilities, public speaking, and JavaScript.
- As a mentor, guiding and supporting young girls in helping them develop confidence in their abilities to succeed in technical fields.

Insight Workshop Academy — Training Program 2018-19

June 2020 – Sept 2020

- Completed three-month training on Python, Django, Django Rest Framework, and React.
- Developed a web application using ReactJS, Django, and PostgreSQL, contributing to improvements in the education system

EDUCATION

Thapathali Campus, Institute of Engineering, Tribhuvan University
M.Sc. in Informatics and Intelligent Systems Engineering May 2025 – Present

- Courses: Numerical Analysis, Information Theory, Computational Intelligence, Computer Vision, Applied Machine Learning, Modern Natural Language Processing, Data Science and Analytics

Tribhuvan University (TU)

Bachelor of Engineering in Computer Engineering Nov 2015 – Oct 2019

- Courses: Big Data Technologies, Data Mining, Artificial Intelligence, Enterprise Application Design and Development, Data Structures

High School Valmiki Shiksha Sadan

Plus Two Science Oct 2012 – April 2015

- Courses: Biology, Chemistry, Mathematics, Physics

ONLINE COURSES

Understanding the Brain: The Neurobiology of Everyday Life

The University of Chicago, Coursera July 2024 – Dec 2024

Python For Data Science and Machine Learning Bootcamp

Udemy Feb 2024 – April 2024

Image and Video Processing: From Mars to Hollywood with a Stop at the Hospital

Duke University Sept 2024 – Jan 2025