Sarina Shakya

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SUMMARY

- Built interactive software systems using **Python**, **OpenCV**, and structured programming principles, demonstrating the ability to design maintainable and efficient code through projects like the Virtual Painting System.
- Developed end-to-end deep-learning pipelines using **TensorFlow** and **CNN/LSTM architectures**, reflecting strong understanding of algorithms, data preprocessing, and model evaluation through the Captionary project.
- Collaborated in projects through clear communication, organized task management, and structured workflows, supporting reliable project delivery within expected timelines.
- Interested in starting my career at a software company that values training, learning, and mentorship.

EDUCATION

Bachelor of Computer Engineering | ***Lalitpur Engineering College, Chakupat*** **2022 – Present**

(Completed 7th semester, entering final semester)
Elective taken: Web Technologies and Applications

+2 (Science) | *Omega College, Kumaripati* | (GPA 3.57) **2020 – 2021**
SEE | *Horizon English School, Dhapagal* | (GPA 3.65) **2005 – 2019**

PROJECTS | *(Link to Full Projects)*

- **Minor Project**

  Title: **Virtual Painting System using Finger Gesture Detection and Recognition** |*(Link to Project)*

  Relevant Skills: Python, OpenCV, Numpy

  – Developed an interactive computer-vision system that allows users to draw in the air by tracking hand and finger gestures captured in real time through a webcam, demonstrating proficiency in Python, OpenCV, and real-time image processing techniques.

- **Major Project**

  Title: **Captionary: Generating Image Descriptions with ResNet and LSTM** |*(Link to Project)*

  Relevant Skills: Python, CNN, LSTM, Deep Learning, ML Optimization, TensorFlow

  – Designed and implemented a deep-learning model that automatically generates descriptive captions for images by combining CNNs for feature extraction and LSTM networks for sequence prediction, demonstrating proficiency in Python, TensorFlow, and data preprocessing for machine learning.

  The system for the Major Project of Bachelor's Degree includes dataset preprocessing, feature extraction, tokenizer development, and model training pipelines. Generated captions are stored and evaluated for accuracy, demonstrating the application's ability to interpret images and describe them in human-readable form.

SKILLS

- **Programming:** C, C++, Python (Basic)
- **Web Development:** HTML, CSS, JavaScript
- **Database:** MySQL
- **Tools:** VS Code, GitHub
- **Soft Skills:** Communication, Teamwork, Problem Solving

HOBBIES

- Reading
- Dancing
- Listening to Music
- Travelling
- Drawing

TRAININGS AND CERTIFICATIONS

- **Machine Learning with Python**, Broadway Infosys, 2025
- **LOCUS Software Fellowship**, IOE Pulchowk, 2023

REFERENCES

Anup Shakya
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