

# Saksham Sapkota

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LinkedIn | GitHub

## Summary

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AI/ML enthusiast with a strong academic foundation, ranked top 10 in IOE Entrance 2078. Experienced in real-world AI projects and leadership roles in student organizations. Passionate about solving practical problems using deep learning and data-driven approaches.

## Education

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**Institute of Engineering, Pulchowk Campus**, Bachelor's in Computer Engineering Apr 2022 – July 2026

- **Aggregate:** 81.76 %
- **Coursework:** Computer Architecture, Artificial Intelligence, Data Structures and Algorithms, Project Management, Software Engineering

**Orchid Science College, Bharatpur, Chitwan**, +2, Science July 2019 - Sept 2021

- **GPA:** 3.59
- **Coursework:** Calculus, Algebra, Physics, Computer Overview, Chemistry

## Experiences

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**Mentor**, ClampHook Academy – Kuponhole, Lalitpur May 2023 – Present

- Working as a mentor for students appearing for the Institute of Engineering, Entrance Examination
- Volunteered as a Computer-Based Test invigilator.

**Hostel Prefect**, Pulchowk Campus Boys Hostel – Pulchowk, Lalitpur Aug 2023 – July 2024

- Elected member of the Hostel Prefect Committee
- Supervised and managed hostel activities, ensuring a safe and disciplined environment for over 390 students.

**Executive Member**, Chitwan Engineering Students Association – Pulchowk Campus Mar 2023 - Mar 2024

- Organized 3+ major student welfare events, including a blood donation campaign, book distribution, and clothes donation
- Developed leadership and teamwork skills while contributing to the campus community.

**Event Organizer**, LOCUS – Pulchowk Campus Jan 2023

- Managed logistics and setup for 2 major robotics competitions: RoboPop and Dronacharya with 20+ participants in LOCUS 2023
- Marketing team member to reach out to sponsors
- Worked as a volunteer for the LOCUS Photography Competition.

## Projects

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### Grape Disease Identification

[Link](#)

Developed a deep learning-based grape disease detection system using Convolutional Neural Networks (CNN). This system accurately identifies grape plant diseases from leaf images and features a web interface for users to upload images and receive instant disease predictions.

- **Key Features:** 98% accuracy in disease detection, User-friendly web interface for real-time predictions.
- **Skills Acquired:** Expertise in CNNs, Data Augmentation, Pooling, Dropout Regularization, Hyperparameter Tuning, TensorFlow Pipelines, and FastAPI.
- **Tools Used:** Python, TensorFlow, FastAPI

## Automatic Vehicle Number Plate Recognition

[Link](#)

Built an advanced vehicle license plate recognition system using YOLOv8 and EasyOCR for real-time detection, tracking, and OCR processing. It is ideal for traffic monitoring and surveillance applications.

- **Key Features:** Real-time vehicle tracking with SORT, Custom trained YOLOv8 model, Automated CSV data export.
- **Skills Acquired:** Multi-object detection & tracking, CUDA-accelerated processing, EasyOCR text recognition.
- **Tools Used:** Python, YOLOv8, EasyOCR, OpenCV, CUDA, SORT, NumPy, Pandas

## Certifications

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### Machine Learning Specialization, Coursera, DeepLearning.AI

[Link](#)

- Developed and trained machine learning models using NumPy, scikit-learn, TensorFlow, and various algorithms, including linear/logistic regression, decision trees, and neural networks for prediction, and classification.
- Hands-on experience in Machine Learning Algorithms like clustering, anomaly detection, collaborative filtering, content-based filtering for recommender systems, and reinforcement learning.

### Data Visualization, Kaggle Learn

[Link](#)

- Learned about powerful Python libraries like Seaborn, and Matplotlib
- Applied theoretical understanding and coding to visualize different varieties of data and their relation

### Career Essentials in Generative AI by Microsoft and LinkedIn, LinkedIn Learning

[Link](#)

- Learned to make use of Copilot and Microsoft 365 and understood about AI Ethics, Search Engines vs Reasoning Engines, and Intro to Artificial Intelligence.

### Intermediate Machine Learning, Kaggle Learn

[Link](#)

- Gained experience in some intermediate Machine Learning Algorithms like Decision Trees, XGBoost, etc.

### Intro to Machine Learning, Kaggle Learn

[Link](#)

- Developed an understanding of Machine Learning and some Machine Learning Algorithms.

## Additional Experience And Achievements

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**Member, IEEE Pulchowk Campus:** Working as a member at IEEE Pulchowk Campus Student Branch.

**Organizer, Blood Donation (June 2023 | June 2024):** Organized Blood Donation in collaboration with the Himal Blood Transfusion Center, that collected over 120 units of blood.

**IOE Entrance 2078 Rank 10:** Achieved Rank 10 in Institute of Engineering, Entrance Exam, 2078, and was honored with the title of Chitwan Topper by CESA.

## Skills Summary

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**Languages:** C/C++, Python, HTML, JavaScript, Java, SQL

**Frameworks:** Numpy, Pandas, Matplotlib, Seaborn, Scikit-Learn, TensorFlow, Streamlit

**Tools:** Excel, Photoshop, Capcut, Lightroom, Git

**Platforms:** Visual Studio, Google Colab, Jupyter Notebook, PyCharm

**Soft Skills:** Public Speaking, Team Collaboration, Leadership, Communication

**Personal Interests:** Singing, Guitar, Piano, Harmonium, Dancing