

# Nabin Adhikari, BE (Computer Engineering).

AI | ML | Deep Learning | Data Science | Blockchain | Software Engineering

## Experience

- Sep 2022–Present **Founder & CEO, LAXMI SOFT PVT. LTD., Kathmandu, Nepal.**
- Lead company's projects
  - Handle overall management/communication
- Dec 2023–Mar 2024 **Course Instructor, DEERWALK TRAINING CENTER, Kathmandu, Nepal.**
- Data Science and Machine Learning in Python Course Instructor
- Sep 2021–Mar 2022 **Blockchain Fellowship, ESATYA, RUMSAN GROUP OF COMPANIES, Kathmandu, Nepal.**
- Learn blockchain based development
  - JavaScript, Solidity, Smart Contracts, Digital Wallet, etc

## Education

- Nov 2017–Mar 2022 **Khwopa College of Engineering (Tribhuvan University), Libali, Bhaktapur, Nepal,**  
*Bachelor of Engineering - BE (Computer Engineering).*  
 Overall Grade: 78.98% (Rank: Top 3 out of 48) (3.96 in 4 scale, Source:WES-iGPA Calculator)
- Aug 2015–Jul 2017 **Uniglobe HSS, Kamaladi, Kathmandu, Nepal,**  
*High School(Major: Computer Science, Physics, Math).*  
 Overall Grade: 80.00% (Rank: Top 10 out of 516)

## Publications

- 2023 (Under Review) **Over speed surveillance system using Deep Learning and Distributed System, The Journal of Engineering,**  
 Sanjog Gaihre, Aabhas Dhaubanja, Nabin Adhikari, Nitesh Das, Pratik Tamrakar, Binod Sharma,  
<https://www.authorea.com/doi/full/10.22541/au.169588812.21333562/v1> (preprint).
- 2023 (Under Review) **Towards Energy Equity: Technological Interventions for Reliable Electricity in the Himalayas, Next Energy,**  
 Yaju Rajbhandary, Anup Marahatta, Nabin Adhikari and Ashish Shrestha.

## Research Projects

- 2023 – Present **Multimodal use of LLM for Holistic Travel Itinerary Planning, \*This work is done in collaboration with Dr. Danda pani paudel, researcher at the Computer Vision Lab, ETH Zurich.**
- This project is in Evaluation and planning phase, Application of LLM in multimodal way for effective planning in certain itinerary
- 2022 – Present **Self-learning approach to estimate the real-time electricity-mix- limit in a converter-dominated power system, \*This work is done in collaboration with Ashish Shrestha, PhD Research fellow, University of South-Eastern Norway.**
- Summary:** This strategy's main objective is to ensure that the IBR-dominated power system can be operated safely in both normal and emergency scenarios using Self-learning Based approaches.
- Tools:** Python, Tensorflow2.x, Keras, Matlab

## Projects

- 2022 **Automated Face Recognition Based Attendance System Using Retina face and FaceNet, Khwopa College of Engineering, Bhaktapur, Nepal,**  
<https://github.com/nabinadhikariofficial/Automated-Face-Recognition-Based-Attendance-System>.  
**Summary:** A machine learning based approach for taking attendance in class and it's database management.  
**Tools:** Python, Scikit-learn, Tensorflow2.x, Keras, Facenet, RetinaFace, Flask, NoSQL
- 2021 **Fund Allocation and Tracking through Blockchain, Khwopa College of Engineering, Nepal,**  
<https://github.com/nabinadhikariofficial/FundAllocationAndTracking>.  
**Summary:** Decentralized fund management system with transparent fund allocation and tracking underlying blockchain architecture.  
**Tools:** Python, Numpy, MySQL, Solidity, Smart Contract
- 2020 **Marriage point calculator (Android Application),**  
<https://github.com/nabinadhikariofficial/Marriage-point-calculator>.  
**Summary:** This app calculates the points for that particular card game which is found to be tedious for players and gives their equivalent points based upon the calculation.  
**Tools:** Android(Java)-Android Studio

- 2018 **Water Boiler Controller Arduino (Android Application)**, *Khwopa College of Engineering, Nepal*, <https://github.com/nabinadhikariofficial/Water-Boiler-Controller-Arduino>.  
**Summary:** This project is Arduino based water boiler controller where android app is created which is used as the controlling mechanism for the Arduino, running on the basis of different sensors used for controlling the actual hardware  
**Tools:** Android(Java)-Android Studio, Arduino IDE

## Courses and Certifications

- 2023 **4th Annual Nepal AI School(ANAS)**, *NepAI Applied Mathematics and Informatics Institute for Research, Lalitpur, Nepal*, [Certificate link](#).  
◦ 10-day (55 hrs lectures + 18 hrs lab sessions + 14 hrs Project and Professional development sessions)  
◦ Keynote speakers:(Prof. Angela Yao, Prof. CV Jawahar, Dr. Gaël Varoquaux, Prof. Michael Bronstein & Prof. Pushpak Bhattacharyya)
- 2023 **Deep Learning Specialization (5 Courses)**, *Coursera: Certificate link*.  
◦ Neural Networks and Deep Learning  
◦ Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization  
◦ Structuring Machine Learning Projects  
◦ Convolutional Neural Networks  
◦ Sequence Models
- 2023 **Machine Learning Specialization (3 Courses)**, *Coursera: Certificate link*.  
◦ Supervised Machine Learning: Regression and Classification  
◦ Advanced Learning Algorithms  
◦ Unsupervised Learning, Recommenders, Reinforcement Learning
- 2023 **Mathematics for Machine Learning and Data Science Specialization (3 Courses)**, *Coursera: Certificate link*.  
◦ Linear Algebra for Machine Learning and Data Science  
◦ Calculus for Machine Learning and Data Science  
◦ Probability and Statistics for Machine Learning and Data Science
- 2023 **Introduction to Deep Learning**, *MIT*, [introtodeeplearning.com](http://introtodeeplearning.com).  
◦ MIT's introductory program on deep learning methods covers computer vision, natural language processing, biology, and more.
- 2020 **CS50's Introduction to Artificial Intelligence with Python 2020**, *Harvard University*.  
◦ This course explores the concepts and algorithms at the foundation of modern artificial intelligence, diving into the ideas that give rise to technologies like game-playing engines, handwriting recognition, and machine translation.  
◦ Learned from the CS50 Youtube Channel, [Link to Video Playlist](#)

## Skills

|               |   |
|---------------|---|
| Languages     | Python, C/C++, SQL, JS, Java, Android(Java), NoSQL, SQL, Solidity, HTML/CSS   |
| Domain        | AI-ML, Deep Learning, Computer Vision, Data Science, Blockchain   |
| Frameworks    | PyTorch, Keras, Tensorflow, Numpy, Scipy, Pillow, Django, Flask, OpenCV, Scikit-Learn, Scikit-Image, Matplotlib, Matlab |
| Utilities     | Anaconda, Git, VS Code, PyCharm, Jupyter Notebook   |
| Communication | English, Hindi, Nepali(Native)  |
| Others        | Agile Methodology(SCRUM framework), Design Patterns, Photoshop, Illustrator, Linux Scripting, LaTeX                     |

## Awards and Talks

- 2022 **AI and Blockchain, Speaker**, *Esatya, Kathmandu, Nepal*.
- 2019 **Presentation Competition, Runner-up**, *Khwopa college of Engineering, Bhaktapur, Nepal*.
- 2018 **Robot Competition(Line Tracking), 2nd Runner-up**, *Khwopa college of Engineering, Bhaktapur, Nepal*.
- 2016 **Science Festival 2016, Runner-up**, *Uniglobe HSS, Kathmandu, Nepal*.
- 2016 **Web Design Competition, Runner-up**, *Uniglobe HSS, Kathmandu, Nepal*.
- 2014 **Vth Gyan Wiz Week, Finalist (Math quiz)**, *AVM Higher Secondary School, Lalitpur, Nepal*.

## Leadership and Volunteer Experiences

- 2023 **Lions Club of Kathmandu Sundhara Bagdurbar, Treasurer**.
- 2022 **Lions Club of Kathmandu Sundhara Bagdurbar, Charter Member (Int. lions id: 5936431)**.
- 2021 **Khwopa Annual Event, Picnic Coordinator (Computer Department)**.
- 2020 **Khwopa Robotics Event, Organizing team**.
- 2017 **Uniglobe Science Club, Member**.

## References

**Er. Dinesh Gothe**, [gothe.dinesh@khwopa.edu.np](mailto:gothe.dinesh@khwopa.edu.np),  
Head of Department, Department of Computer Engineering, Khwopa College of Engineering.

**Dr. Danda Pani Paudel**, [paudel@vision.ee.ethz.ch](mailto:paudel@vision.ee.ethz.ch),  
Computer Vision Lab, ETH Zurich.

**Ashish Shrestha**, [Ashish.Shrestha@usn.no](mailto:Ashish.Shrestha@usn.no),  
PhD Research fellow, University of South-Eastern Norway.

**Other references of my work, certificates and projects are available upon request.**