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

Experience

Mar 2025 - License Technology Marketing and Commercialization Intern,

Present VIRGINIA TECH, OFFICE OF RESEARCH AND INNOVATION (LICENSE), Blacksburg, VA.

- o Create patent marketing briefs (130+ to date) to support ongoing patent filing, licensing, and commercialization efforts.
- o Improve the Tech Publisher website and use AI tools and patent systems to streamline workflows and enhance technology discoverability.

May 2025 - Web Assistant, Virginia Tech, Vet Med Research & Graduate Studies, Blacksburg, VA.

Aug 2025 $\,$ Enhanced departmental webpages and implemented PDF formatting tools.

• Managed CMS content validation, updates, and web development tasks.

Sep 2022 – Founder & CEO, LAXMI SOFT PVT. LTD., Kathmandu, Nepal.

Present • Led Al-driven enterprise solutions, team building, and strategic growth initiatives. (Academic Leave) • Established a succession plan to ensure smooth operations during leave.

Dec 2023 - Course Instructor, DEERWALK TRAINING CENTER, Kathmandu, Nepal.

Jul 2024 o Data Science and Machine Learning in Python Course Instructor

Sep 2021 - Blockchain Fellowship, ESATYA, RUMSAN GROUP OF COMPANIES, Kathmandu, Nepal.

Mar 2022 • Learn blockchain based development

JavaScript, Solidity, Smart Contracts, Digital Wallet, etc

Education

Jan 2025 - Virginia Polytechnic Institute and State University (VT), Blacksburg, Virginia, USA,

Present MS in Computer Engineering, The Bradley Department of Electrical and Computer Engineering.

Current GPA: 4.0/4.0

Nov 2017 - Khwopa College of Engineering (Tribhuvan University), Libali, Bhaktapur, Nepal,

Mar 2022 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 - Uniglobe HSS, Kamaladi, Kathmandu, Nepal,

Jul 2017 High School(Major: Computer Science, Physics, Math).

Overall Grade: 80.00% (Rank: Top 10 out of 516)

Skills

Languages Python(Most Comfortable), C/C++, SQL, JS, Java, Android(Java), NoSQL, SQL, Solidity, HTML/CSS

Domain Al-ML, Deep Learning, Computer Vision, Data Science, Blockchain

Frameworks Tensorflow, Keras, Pytorch, Numpy, Scipy, Pillow, Fastapi, Flask, OpenCV, Scikit-Learn, Scikit-Image, Matplotlib, Matlab

Utilities Anaconda, Git, VS Code, Jupyter Notebook

Communication English, Hindi, Nepali(Native)

Others Agile Methodology(SCRUM framework), Design Patterns, Photoshop, Illustrator, Linux Scripting, LaTeX

Publications

2023 Over speed surveillance system using Deep Learning and Distributed System, The Journal of Engineering,

(Under Review) 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 Towards Energy Equity: Technological Interventions for Reliable Electricity in the Himalayas, Next Energy,

(Under Review) Yaju Rajbhandary, Anup Marahatta, Nabin Adhikari and Ashish Shrestha.

Projects

2022 Automated Face Recognition Based Attendance System Using Retina face and FaceNet, Khwopa College of Engineering, Bhaktapur, Nepal,

https://github.com/nabinadhikari of ficial/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/nabinadhikari of ficial/Fund Allocation And Tracking.

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/nabinadhikari of ficial/Marraige-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

- 4th Annual Nepal Al School(ANAIS), NepAl Applied Mathematics and Informatics Institute for Research, Lalitpur, Nepal, Certificate link.
 - o 10-day (55 hrs lectures + 18 hrs lab sessions + 14 hrs Project and Professional development sessions)
 - o 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
- o 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.

- O Supervised Machine Learning: Regression and Classification
- Advanced Learning Algorithms
- O Unsupervised Learning, Recommenders, Reinforcement Learning

2023 Mathematics for Machine Learning and Data Science Specialization (3 Courses), Coursera: Certificate link.

- O Linear Algebra for Machine Learning and Data Science
- o Calculus for Machine Learning and Data Science
- o Probability and Statistics for Machine Learning and Data Science

2023 **Introduction to Deep Learning**, *MIT*, introtodeeplearning.com.

o 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

Awards and Talks

- 2022 Al 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.