

# Nabin Adhikari

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

## 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

## Skills

Languages Python(Most Comfortable), C/C++, JS, Java, Android(Java), NoSQL, SQL, Solidity, HTML/CSS  
 Frameworks TensorFlow, PyTorch, scikit-learn, OpenCV, Flask, FastAPI, Django, Pandas, NumPy, Hugging Face, Hardhat, Truffle  
 Tools Git, Docker, Kubernetes, AWS, MLflow, Airflow, Streamlit, Postman, Jupyter  
 Domain AI/ML, Deep Learning, Computer Vision, Data Science, Blockchain, Full-Stack Development, Software Engineering

## Experience

Mar 2025 – **License Technology Marketing and Commercialization Intern,**  
 Present VIRGINIA TECH, OFFICE OF RESEARCH AND INNOVATION (LICENSE), Blacksburg, VA.  
 ○ Create patent marketing briefs (170+ to date) to support ongoing patent filing, licensing, and commercialization efforts.  
 ○ Improve the Tech Publisher website and use AI tools and patent systems to streamline workflows and enhance technology discoverability.

May 2025 – **Full Stack Web Developer,** 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 ○ Developed and launched two enterprise systems — **Laxminn** (laxminn.com), a hotel management platform serving **50+ hotels**, and **SchoolsIE** (schoolsie.com), an all-in-one school management solution adopted by **one of Nepal's largest schools** as an early user.  
 (Academic Leave) ○ Led AI-based enterprise solution design, team building, and strategic growth initiatives.

## Projects

2025 **Autonomous Hardening of LLM Defenses via Closed-Loop Adversarial Feedback,** [link](#).  
**Summary:** An autonomous cybersecurity pipeline that utilizes adversarial feedback loops to detect, generate, and patch LLM vulnerabilities in real-time, reducing vulnerability to unseen attacks by ~22%.  
**Tools:** Python, PyTorch, Hugging Face Transformers, PEFT (LoRA), Llama 3.1 (8B/70B), DeBERTa, WandB, NVIDIA H200

2022 **Automated Face Recognition Based Attendance System Using Retina face and FaceNet,** [link](#).  
**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,** [link](#).  
**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),** [link](#).  
**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),** [link](#).  
**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

## Professional Development, Achievements and Others

- Completed 10+ certifications in AI, ML, Deep Learning, and Applied Mathematics from MIT, Harvard, Coursera.
- Publications: Over Speed Surveillance System Using Deep Learning and Distributed System (The Journal of Engineering, under review) and Towards Energy Equity: Technological Interventions for Reliable Electricity in the Himalayas (Next Energy, under review)..
- Taught *Data Science and Machine Learning in Python* at Deerwalk Training Center.
- Speaker, “AI and Blockchain” at Esatya.
- 2nd Runner-up, Robot Competition (Line Tracking).