Kalanki, Kathmandu-13, Box 44600, Bagmati, Nepal Nationality: Nepalese, m/y of Birth: August 1993 

# RABINDRA LAMSAL

### Education

M.Tech, Computer Science and Technology, Jawaharlal Nehru University, New Delhi, 2017–2019.

CGPA: 8.70/9.0 (High First Class), Equivalent Percentage: 92% out of maximum possible 95% Thesis: "Disaster Response using Artificial Intelligence". Thesis work graded 9.0/9.0.

BE, Computer Engineering, Kathmandu University, Dhulikhel, 2012–2016.

Overall CGPA: 3.08/4.0, Junior-Senior year CGPA: 3.29/4.0

12th, Science stream, HSEB, United Academy, Lalitpur, 2009–2011.

Percentage: 81.04% (Distinction)

## Work Experience

Project Associate, Special Centre for Disaster Research, Jawaharlal Nehru University, New Delhi, 2018–2019.

Developed AI-based Disaster Response Systems. Presented research works.

Junior System Administrator, Annapurna Post, Corporate Tower, Kathmandu, 2016–2017.

Worked on DHCP server, Firewall, NAT, DNS server, Web server.

Founder Coordinator, Kathmandu University WordPress Club, Dhulikhel, 2015–2016. System Administrator, Kathmandu University Boys Hostel, Dhulikhel, 2014–2015.

Deployed a LINUX based networking environment. Managed bandwidth.

Senior Volunteer, Help Nepal Network (HeNN), Kathmandu, 2013–2016.

Installed and monitored electronic libraries (Linux Terminal Server Project) at various remotely established governmental educational institutions.

Trainer, Community Education Project (CEP), Kathmandu University, Dhulikhel, 2013.

#### Interests

Machine Learning, Deep Learning, Reinforcement Learning, NLP, Social Computing

### **Abilities**

Libraries: Scikit-learn, TensorFlow, NLTK, NumPy, Pandas, Plotly/Dash

Programming: Python, JAVA, C

Misc: SQL, Linux System Administration, Twitter APIs, LaTeX

#### **Publications**

## **Book Chapters & Conferences**

**Rabindra Lamsal** and T.V. Vijay Kumar. (2020). Artificial Intelligence and Early Warning Systems. In *AI and Robotics in Disaster Studies* (pp. 13-32). Palgrave Macmillan, Singapore.

- **Rabindra Lamsal** and T.V. Vijay Kumar. (2020). Artificial Intelligence Based Early Warning System for Coastal Disasters. In *Development in Coastal Zones and Disaster Management* (pp. 305-320). Palgrave Macmillan, Singapore.
- Rabindra Lamsal and T.V. Vijay Kumar. (2019). Artificial Intelligence based Disaster Response Systems. Fourth World Congress on Disaster Management. January 29-February 1, 2019, IIT Bombay, India. [abstract]

### Journal articles

- **Rabindra Lamsal**. (2020). Design and analysis of a large-scale COVID-19 tweets dataset. *Applied Intelligence*.
- **Rabindra Lamsal** and Shubham Katiyar. (2020). cs-means: Determining Optimal Number of Clusters Based on a Level-of-Similarity. *SN Applied Sciences* 2, 1774.
- **Rabindra Lamsal** and T.V. Vijay Kumar. (2020). Twitter based Disaster Response using Recurrent Nets. *International Journal of Disaster Response and Emergency Management*, 3(1). [accepted, yet to be online]

-under review-

**Rabindra Lamsal** and T.V. Vijay Kumar. (2020). Twitter based Disaster Response using traditional Machine Learning Algorithms.

## **Preprint**

**Rabindra Lamsal** and Ayesha Choudhary. (2018). Predicting Outcome of Indian Premier League (IPL) Matches Using Machine Learning. [arXiv]

### Poster Presentation(s)

**Rabindra Lamsal** and T.V. Vijay Kumar. (2019). Social Media Analytics for Disaster Response using Artificial Intelligence. National Science Day, New Delhi, India.

## Public Datasets

- Rabindra Lamsal. (2020). Coronavirus (COVID-19) Tweets Dataset. *IEEE Dataport*. http://dx.doi.org/10.21227/781w-ef42
- Rabindra Lamsal. (2020). Coronavirus (COVID-19) Geo-tagged Tweets Dataset. *IEEE Dataport*. http://dx.doi.org/10.21227/fpsb-jz61
- Rabindra Lamsal. (2019). 300-Dimensional Word Embeddings for Nepali Language. *IEEE Dataport*. http://dx.doi.org/10.21227/dz6s-my90

# Grants & allowances

- Honorariums and allowances (2018-2019), Special Centre for Disaster Research, Jawaharlal Nehru University, New Delhi, India.
- Travel and Accommodation grant (2019). Fourth World Congress on Disaster Management, Indian Institute of Technology (IIT) Bombay, Mumbai, India.

Travel grant and allowances (2013-2016). Linux Terminal Server Project (LTSP). Help Nepal Network, Kathmandu Nepal.

# Academic projects

## Live Twitter Sentiment [web app]

A near-real-time sentiment analysis project. Two datasets, which were the products of this project, have been selected as the first-place winner in the Spring 2020 IEEE DataPort Dataset Competition.

Twitter Based Disaster Response System

Disaster Response System targeted for Coastal disasters

Projects completed as a part of M.Tech thesis.

Indian Premier League (IPL) Matches Prediction Model

A machine learning model capable of predicting the outcome of an IPL games.

Fabrication of Microstrip Patch Antenna [GitHub]

A Microstrip Patch Antenna designed in MATLAB, simulated in Computer Simulation Tool (CST) and fabricated in Lab. Project carried out as a part of the course *Wireless Sensor Networks*.

Inventory Management System [GitHub]

A complete Inventory Management System, written in PHP and MySQL. Project carried out as a part of the course *Database Management Systems*.

Noise Buzzer

An embedded system capable of detecting noise, and triggering sound alarm.

**Duckworth-Lewis Calculator** 

An android application to calculate revised cricket scores after a game is interrupted due to rain.

Car Racing Game

A C language based 2D car racing game, selected for showcasing at CAN Softech 2013.

# Sports (most recent)

First (Table Tennis Doubles) and Runner-up (Table Tennis Singles). Chandrabhaga Hostel Sports Week 2019, Jawaharlal Nehru University, New Delhi

## Voluntary works

Coded two problems for the 2019 EngQuest competition - The Knapsack Problem and The Travelling Salesman Problem, Jawaharlal Nehru University.

Organized IT MEET (2016, 2013), Kathmandu University.

Contributed as System Developer at Sports Week (2016), Kathmandu University.

Organized various WordPress Workshops (2015 - 2016).

Volunteered in IT MEET (2014), Kathmandu University.

Executive Member (2013 - 2015) of Kathmandu University Computer Club.

Participated in Google Translate Community (2014).

Volunteered in National Workshop (2014) on the 'Primer Series on ICTD for Youth': Project Management and ICTD.