

## RAJAN GYAWALI

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An independent and self-motivated, a research enthusiast with proven skills in Computer Vision and Machine Learning. Graduated with a Master's degree in "**Information and Communication Engineering**" from the Institute of Engineering, Pulchowk Campus, Tribhuvan University, Kathmandu, Nepal.

## EDUCATION

### **Pulchowk Campus, Tribhuvan University**

Lalitpur, Nepal

MSc. Information and Communication Engineering, 90.13%

2019

- Completed two year's programme as a research student
- Major Subjects: *Color Image Technology, Image Processing, Machine Learning & Pattern Recognition*
- Project Work on "**Convolutional Neural Networks for Multiclass Face Recognition**"
- Thesis research on "**Employee Face Recognition by Region Proposal Networks and Faster R-CNN**"

### **Himalaya College of Engineering, Tribhuvan University**

Lalitpur, Nepal

B.E. Electronics and Communication Engineering, 82.06%

2016

- Major Subjects: *Discrete Mathematics, Artificial Intelligence, Data Mining, Big Data Technologies, Analog and Digital Signal Processing*
- Minor Project on "**Smart Irrigation System**"
- Final Year Project on "**Brain Controlled Wheelchair**"

## WORK EXPERIENCE

### **Tenured Government Telecommunication Engineer** | Nepal Telecom (May 2018 – present)

- Scripting to automate the daily redundant tasks of report management and network status
- Analysis of key performance indicators of network elements with a fully automated analytics system, "**Wireless KPI Analytics Tool**", developed and maintained by me
- Installation, configuration and commissioning of 2G, 3G BTS Nodes and LTE eNodeBs
- Preparing estimate, installation, performance report, and documentation of ongoing projects
- Providing training on "*Python Programming*", "*Data Analytics and Visualizations*" to other employees of the company

**Lecturer** | Himalaya College of Engineering (Oct 2016 – May 2018)

- Involved in teaching undergraduate courses up to class size of 48 students. Subjects included: “*Electromagnetics*”, “*Computer Graphics*”, “*Signal Processing*”, “*Digital Communications*” and “*Wireless Communications*”
- Prepared course materials including laboratory experiments, lectures, exams, homework, and practice problems
- Led weekly laboratory and/or problem-solving and discussion sections for groups of 16-24 students
- Supervised students in final year projects, graded exams and weekly assignments
- Provided training on “*Python Programming*” to undergraduate students of Computer Engineering and Electronics & Communication Engineering

**Part Time Lecturer** | Engineering Colleges and Private Institutions (May 2018 – present)

- Involved in teaching various courses to undergraduate students of Engineering, from different engineering colleges of Tribhuvan University at different points of time
- Involved in teaching students, preparing for “*Public Service Commission*”

**Python Programmer** | (Dec 2015 – present)

- Involved in teaching Python language to students, colleagues with focus on data analysis and visualizations
- Involved in building REST APIs and websites using Python, Django

## **RESEARCH EXPERIENCE**

**Pulchowk Campus, Tribhuvan University**

Lalitpur, Nepal

Master’s Researcher

2018 - 2019

- Studied about different image processing methodologies and machine learning algorithms
- Used *Convolutional Neural Networks* for multi-class face recognition as a project work
- Developed a Deep Learning model for employee face recognition with standard dataset, used *Region Proposal Networks* for image segmentation and *Faster R-CNN* for classification and tested the model with my own primary dataset, as a master’s thesis

## **PUBLICATION**

- R. Gyawali, D. R. Pant, “**An Approach for the Employee Face Recognition by RPN and Faster R-CNN Techniques**”, IOE Graduate Conference, Volume 6, May 2019.

## **SKILLS**

Python, Django, PostgreSQL, Git, Plotly, Dash, Pandas, Numpy, Matplotlib, Javascript

## **LEADERSHIP EXPERIENCE**

- Founded a forum under the name “*Himalaya Coders Forum*” with the aim to provide programming training to 1<sup>st</sup> year and 2<sup>nd</sup> year students of the college during my 4<sup>th</sup> year study at Himalaya College of Engineering
- Actively participated in various activities of “*Robotics Club*” at college during my undergraduate studies

## **TRAINING and ONLINE COURSES**

- Participated in 2 months training course on “*Data Science with Python*”, Leapfrog Academy, Kathmandu, March – May 2016
- Participated in 20 days training on “*EUTRAN eNodeB Training*” at Huawei Global Training Center, China, June 8 – July 7, 2019
- Participated in 2 days workshop on “*Internet of Things*” at Deerwalk Inc., Kathmandu, February 29 – March 1, 2020
- Took course on “*Python for Everybody*” and “*Django for Everybody*”, offered by Coursera, 2020
- Took Course on “*Data Science*” and “*Applied Data Science*” offered by IBM on Coursera, 2020

## **ACHIEVEMENTS AND AWARDS**

- “**Best Project Award**”, for my undergraduate final year project “**Brain Controlled Wheelchair**”, in the “*nec project exhibition*” organized by Nepal Engineering College, 2016
- “**Mahatma Gandhi Scholarship**”, awarded by Indian Embassy, Nepal, 2009-2011
- “**Golden Jubilee Scholarship**”, awarded by Indian Embassy, Nepal, 2011-2013
- Full Scholarship at Himalaya College of Engineering, for pursuing undergraduate degree
- Regular Scholarship at Pulchowk Campus, for pursuing graduate degree
- Ranked 3<sup>rd</sup> in undergraduate results of “*Electronics and Communication Engineering*” offered by Institute of Engineering, Tribhuvan University
- Ranked 1<sup>st</sup> in graduate results of “*Information and Communication Engineering*”, Pulchowk Campus

## **DECLARATION**

I hereby declare that the information given above is correct to the best of my knowledge and belief.

Rajan Gyawali