

**Prasanga Neupane**  
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Louisiana State University

## ACADEMIC QUALIFICATION

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2020 Jan – Present      **PhD in Electrical and Computer Engineering** (4.0 GPA)  
Louisiana State University, Baton Rouge, Louisiana, USA

2014 – 2018              **Bachelor of Computer Engineering** (75.25%)  
Pulchowk Campus, Tribhuvan University, Lalitpur, Nepal

## WORK EXPERIENCE

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January, 2020 – Present      Louisiana State University (Research Assistant)  
**Created statistical learning model to predict the location of human in indoor environment using WIFI signals, Implemented a DeepLearning model for human action recognition in low illuminated videos**

November, 2018 – December, 2019      Alternative Technology Nepal (Machine Learning Engineer)  
**Created a GAN model to generate Abstract designs for rug, Implemented indoor scene segmentation and 3D reconstruction using DeeplabV3 and Vanishing point, Implemented indoor image segmentation and object recognition, Implemented content aware image retrieval system using VGG and ResNet**

## PROJECTS & RESEARCH

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1. Floor Segmentation in Indoor Scene and Laying Rug  
Indoor scene recognition and 3D reconstruction from 2D indoor images and laying rug in the indoor scene. (DeepLabV3, Vanishing Point Estimation)  
Live at <https://galaincha.com.np/my-room.php>
2. RNN Based Crypto Price Prediction with Social Media Sentiment Analysis  
Created a sentiment analysis dataset and performed a multi-modal analysis of cryptocurrency price and social media sentiment to forecast the price fluctuations. (Recurrent Neural Network, Natural language processing)  
[Link](#)
3. Content Based Image Retrieval  
Created an image retrieval system based on semantic similarity of images (VGG19, ResNet)

[Link](#)

4. Recognizing Unknown Local Repeated Pattern in Image  
Detecting and Localizing the motif that is repeated several times in the image.  
Inpainting missing motifs.(Convolutional Neural Network)

[Link](#)

5. Image Color Quantization  
Reducing Colors in Image using SLIC Segmentation and K-Means Algorithm  
(Sk-learn)
6. Automated Ballot Paper Vote Counting  
Recognizing and Localizing the voting symbol on the scanned ballot paper  
(Convolutional Neural Network)

**Github:** <https://github.com/akaprasanga>

## PROGRAMMING SKILLS

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1. Proficient in Python, MATLAB, C#, Java and C++
2. Competent in Machine Learning(Pytorch/Tensorflow), Image Processing (OpenCV), Natural Language Processing, Graphical data processing, Sequential Data Analysis, Classification, Regression, Sklearn, Random forest, SVM, Deep learning using GPU
3. Concept of Object oriented programming and software life cycle and algorithms
4. Proficient in MongoDB, Pandas, SQL, BigData and Spark

## PUBLICATIONS

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1. **P. Neupane**, H.C. Wu, G. Liu, W. Xiang, J. Ye, S.Y. Chang "Novel Cascade Classifier Using Multiresolution Progressive Learning for Device-Free Indoor Localization." IEEE Sensors Letters, 2021. (doi: [10.1109/LENS.2021.3119653](https://doi.org/10.1109/LENS.2021.3119653))
2. **P. Neupane**, G. Liu, H.C. Wu, J. Ye, S.Y. Chang "Novel Optimal Multisensor Placement for Indoor Rectilinear Line-of-Sight Coverage" IEEE Sensors Journal, 2021. (doi: [10.1109/JSEN.2021.3107416](https://doi.org/10.1109/JSEN.2021.3107416))
3. **P. Neupane**, A. Tuladhar, S. Sharma, R. Tamang, "Extracting unknown repeated pattern in tiled images." In: Hybrid Intelligent Systems. HIS 2019. Advances in Intelligent Systems and Computing, vol 1179. Springer, Cham. (doi: [10.1007/978-3-030-49336-3\\_10](https://doi.org/10.1007/978-3-030-49336-3_10))
4. D. R. Pant, **P. Neupane**, A. Poudel, A. K. Pokhrel and B. K. Lama, "Recurrent Neural Network Based Bitcoin Price Prediction by Twitter Sentiment Analysis," 2018 IEEE 3rd International Conference on Computing, Communication and Security (ICCCS), Kathmandu, 2018, pp. 128-132. (doi: [10.1109/CCCS.2018.8586824](https://doi.org/10.1109/CCCS.2018.8586824))

[Google Scholar Link](#)

## VOLUNTEERING AND LEADERSHIP ACTIVITIES

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2015 –2018	Volunteered for HELP NEPAL NETWORK to set-up a E-library using Linux servers
2017	HULT PRIZE at Pulchowk Campus Organizing Committee
2018	LOCUS Organizing Committees

## **AWARDS AND HONORS**

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| 2016 | Winner of Yomari Codecamp (Project of converging Nepalese Culture through IT) |
| 2014 | National Merit Scholarship for Engineering Studies                            |