

# Manoj Acharya

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## Research Interests

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I work on machine learning algorithms mostly in the intersection of language and vision. My overall goal is to develop models capable of learning language grounded visual representations.

## Education

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| 2016 – now  | <b>Ph.D., Imaging Science</b><br>Chester F. Carlson Center for Imaging Science<br>Rochester Institute of Technology, Rochester, NY   |
| 2009 – 2013 | <b>B.E., Electronics and Communication Engineering</b><br>Institute of Engineering<br>Latitpur, Nepal<br><b>Project I:</b> Image Processing Based ‘Ball and Beam’ control system<br><b>Project II:</b> Real Time Nepali Sign Language Recognition using Neural Network |

## Research Publications

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- 1 Acharya, M., Jariwala, K., & Kanan, C. (2019). VQD: visual query detection in natural scenes. *NAACL*.
- 2 Acharya, M., Kafle, K., & Kanan, C. (2019). Tallyqa: answering complex counting questions. In *Association for the advancement of artificial intelligence*.
- 3 Acharya, M. & Pant, D. R. (2015). Computer vision based hand gesture recognition for speech disabled persons. *Journal of the Institute of Engineering*, 11(1), 30–35.

## Research Experience

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| 2013 – 2014 | <b>Researcher</b> , PowerTech Nepal<br><b>Mentor:</b> Surendra Mathema<br><b>Highlights:</b> Developed inexpensive solutions to disseminate health awareness in rural hospitals. Also made embedded systems for hospitals, micro-hydro projects, disaster response units etc. |
| 2015 – 2016 | <b>Software Developer</b> , IT Expert<br><b>Highlights:</b> Developed a MATLAB application to produce 3D printed artifacts with visualization tools for planning and guiding dental surgeries.  |

## Teaching Experience

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| 2018 | <b>Teaching Assistant</b> , Rochester Institute of Technology<br>Deep Learning for Computer Vision |
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## Teaching Experience (continued)

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2016 - 2017	<b>Teaching Assistant</b> , Rochester Institute of Technology Image Processing and Computer Vision I Image Processing and Computer Vision II
Fall 2013	<b>Lecturer</b> , Thapathali Engineering College Image processing and pattern recognition

## Miscellaneous Experience

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### Conference Reviews:

Workshop on shortcomings of vision and language (SiVL) at ECCV(2018) , NAACL(2019)

## Skills

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Languages	English, Nepali ( mother tongue) , Hindi , Spanish (elementary).
Programming Languages	Python, C , C + + , $\text{\LaTeX}$ .
Deep/ML Toolboxes	MatConvNet, Scikit-Learn, Pytorch.
Web Dev	HTML, CSS, JavaScript.

## Awards and Achievements

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2019	Travel grant from AAAI 2019, Hawaii.
2018	Best Student Poster Award in the annual RIT graduate showcase.
2011	Second position in Ethical Hacking competition organized by LOCUS 2011
2009	<b>Merit Award</b> , Four years merit based scholarship for outstanding students