MANOJ ACHARYA

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RESEARCH INTERESTS

Machine Learning (Deep Learning), Computer Vision, Natural Language Processing (NLP), Vision and Language (Visual Question Answering (VQA), Captioning, Dialogue systems).

EDUCATION

2016 – now Ph.D., Imaging Science
Chester F. Carlson Center for Imaging Science
Rochester Institute of Technology, Rochester, NY

2009 – 2013 B.E, Electronics and Communication Engineering
Institute of Engineering Lalitpur, Nepal
Project I: Image Processing Based "Ball and Beam" control system
Project II: Real Time Nepali Sign Language Recognition using Neural Network

RESEARCH PUBLICATIONS

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(AAAI). [Spotlight presentation]
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

2013 – 2014 Researcher, PowerTech Nepal
Mentor: Surendra Mathema
Highlights: 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 Software Developer, IT Expert
Highlights: Developed a MATLAB application to produce 3D printed artifacts with visualization tools for planning and guiding dental surgeries.

TEACHING EXPERIENCE

2018	Teaching Assistant @ Rochester Institute of Technology Deep Learning for Computer Vision
2016 - 2017	Teaching Assistant @ Rochester Institute of Technology Image Processing and Computer Vision I Image Processing and Computer Vision II
Fall 2013	Lecturer @ Thapathali Engineering College Image processing and pattern recognition

PROFESSIONAL SERVICES

Conference Reviews:

- Workshop on Shortcomings of Vision and language (SiVL) at ECCV 2018 and NAACL 2019
- EMNLP 2019
- NeurIPS 2019

TECHNICAL SKILLS

Languages: English, Nepali (mother tongue), Hindi, Spanish (elementary).
Programming Languages: Python, C , C++, LATEX.
Deep/ML Toolboxes: MatConvNet, Scikit-Learn, Pytorch.
Web Development: HTML, CSS, JavaScript.

AWARDS AND ACHIEVEMENTS

- Travel grant to attend AAAI 2019, Hawaii.
- Best Student Poster Award in the annual RIT graduate showcase.
- Second position in Ethical Hacking competition organized by LOCUS 2011
- Merit Award, Four years merit based scholarship for outstanding students