

# Kushal KAFLE

## PERSONAL DATA

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ADDRESS: 288 Crittenden Way, Apt5, Rochester, NY, 14623  
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## RESEARCH INTERSTS

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Machine Learning, Computer Vision, Deep Learning, Image and Natural Language Understanding

## EDUCATION

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AUG 2014 - | Ph.D. Student in IMAGING SCIENCE,  
Current | Chester F. Carlson Center for Imaging Science  
Rochester Institute of Technology, Rochester, NY  
**Advisor:** Dr. Christopher Kanan | **Research Group:** [klab](#)

OCT 2008 - | Bachelor's Degree in ELECTRONICS AND COMMUNICATION ENGINEERING,  
DEC 2012 | Tribhuvan University, Institute of Engineering, Kathmandu, Nepal  
**Elective Specialization:** Image Processing and Pattern Recognition

## PUBLICATIONS

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- Answer-Type Prediction for Visual Question Answering, **Kushal Kafle** and Christopher Kanan\*. In Proceedings of IEEE Conference on Computer Vision and Pattern Recognition (CVPR-2016)

## RESEARCH EXPERIENCES

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JULY 2015 | RESEARCH ASSISTANT  
- Current | Chester F. Carlson Center for Imaging Science,  
Rochester Institute of Technology, Rochester, NY  
**Advisor:** Dr. Christopher Kanan | **Research Group:** [klab](#)  
**Topics :** Computer Vision, Deep Learning, Visual Question Answering, Natural Language Processing

APR 2013 - | R&D CONSULTANT  
JULY 2013 | Alternative Energy Promotion Center, Lalitpur, Nepal  
Ministry of Environment and Population, Nepal Government  
**Tasks :** Did feasibility study of remote monitoring scheme for Solar Home Systems in rural areas. Developed Prototype remote monitoring system.

NOV 2012 - | RESEARCH ASSISTANT  
DEC 2012 | RF and Microwave Engineering Lab,  
Tribhuvan University, Institute of Engineering, Kathmandu, Nepal  
**Tasks :** Demonstrated the vulnerability of ISO/IEC14443 HF-RFID tags with regards to its use in e-Voting system. Designed and reproduced security risks and potential attacks in laboratory.

## TEACHING EXPERIENCES

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JAN 2015 - MAY 2014	<b>TEACHING ASSISTANT</b> Chester F. Carlson Center for Imaging Science, Rochester Institute of Technology, Rochester, NY <b>Under:</b> Dr. Emmett Ientilucci   <b>Class:</b> Radiometry <b>Tasks :</b> Designed, conducted and graded laboratory exercises and homework assignments
AUG 2014 - DEC 2014	<b>TEACHING ASSISTANT</b> Chester F. Carlson Center for Imaging Science, Rochester Institute of Technology, Rochester, NY <b>Under:</b> Dr. Anthony Vodacek   <b>Class:</b> Fundamentals of Imaging Science <b>Tasks :</b> Conducted and graded laboratory exercises
MAY 2013 - OCT 2013	<b>LECTURER</b> College of Information Technology and Engineering, Purbanchal University, Kathmandu, Nepal <b>Subject:</b> Image Processing and Pattern Recognition <b>Tasks:</b> Taught lecture and tutorial module as per existing syllabus. Designed, conducted and graded laboratory exercises and homework assignments.

## WORK EXPERIENCES

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JUNE 2013- SEPT 2013	<b>SOFTWARE DEVELOPER</b> Technology Sales Pct. Ltd. Kathmandu, Nepal <b>Responsibilities :</b> Developed an user-friendly interface in Visual C# for smart-card based vehicle checkpoint entry system installed nationwide. Functions included tracking and logging trips in central database, issuing, verifying and renewing permit imprinted in smart card etc.
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## SCHOLARSHIPS , AWARDS AND GRANTS

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MAR 2016	<b>AWS Research Grant</b> Application completed with Dr. Christopher Kanan. worth \$15000 in AWS credits usable for any AWS service.
APR 2013	Grant from Alternative Energy Promotion Center (Contract number: 245160) Team Lead on Grant of NRs. 67900, awarded for development of prototype remote monitoring system.
DEC 2012	Winner of Nationwide Design Competition Team lead of winning design of open design competition entitled "Electronically Operated Innovative Monitoring System for Solar Home Systems installed in Rural Areas of Nepal" organised by Alternative Energy Promotion Center, Under ministry of Environment and Population, Nepal Government.
2009-2012	Scholarship from Nepal Government Scholarship from Ministry of General Administration, Scholarship Division Committee. Granted only to 200 Engineering, Science and Medicine students each year across the country.
2008-2012	College Fellowship Scholarship

Granted by Tribhuvan University based on Merit per semester. Fellowship granted on six out of eight semesters.

## SKILLS

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Deep Learning Packages	Caffe, Matconvnet, Theano (Basic)
Competent in Programming	C, C++, MATLAB, PYTHON,
Also Familiar With	JAVA, C#, IDL, PIC Micro-controller Programming, Assembly (8085, 8086)
Web Programming Stack	HTML, CSS, JavaScript, JQuery, CherryPy, PHP, Basic Server Configuration in Nginx and Apache, Databases in SQLite and MySQL
Operating Systems	Linux (Ubuntu), Microsoft Windows (XP and above), Mac OS-X (Basic)
TypeSetting & Spreadsheet:	Open Office, Excel, Word, PowerPoint, $\text{\LaTeX}$

## LANGUAGES

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NEPALI:	Mothertongue
ENGLISH:	Fluent   TOEFL score of 118/120   Equivalent IELTS score of band 9.0/9.0
HINDI:	Basic Reading and Conversation Skills

## MEMBERSHIPS

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- IEEE Student Member

## OTHER INTERESTS AND ACTIVITIES

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PHOTOGRAPHY	I enjoy taking pictures and learning new techniques. But I am not as engaged as I used to be <ul style="list-style-type: none"><li>• Top-25 in "Hamro Nepal" (Translated "Our Nepal") Competition/Exhibition by ARTUDIO, 2012</li><li>• Finalist in "The Best of Nepal" photo Exhibition by ROTASIA-2012</li></ul>
IN SPARE TIME	I enjoy reading (fiction and non-fiction), Hiking, Board Games, Keeping up with current affairs and tech advancements