Kushal Kafle

PERSONAL DATA

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RESEARCH INTERSTS

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

EDUCATION

AUG 2014 - Ph.D. Student in IMAGING SCIENCE, Current Chester F. Carlson Center for Imag

Chester F. Carlson Center for Imaging Science Rochester Institute of Technology, Rochester, NY **Advisor**: Dr. Christopher Kanan | **Research Group**: klab

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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

• Kafle, K., Kanan, C. (2016) Answer-Type Prediction for Visual Question Answering. In: Proc. IEEE Conference on Computer Vision and Pattern Recognition (CVPR-2016)

RESEARCH EXPERIENCES

IULY 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

IAN 2015 -**TEACHING ASSISTANT**

Chester F. Carlson Center for Imaging Science, MAY 2014

> Rochester Institute of Technology, Rochester, NY Under: Dr. Emmett Ientilucci | Class: Radiometry

Tasks: Designed, conducted and graded laboratory exercises and homework

assignments

TEACHING ASSISTANT AUG 2014 -

DEC 2014 Chester F. Carlson Center for Imaging Science,

Rochester Institute of Technology, Rochester, NY

Under: Dr. Anthony Vodacek | Class: Fundamentals of Imaging Science

Tasks: Conducted and graded laboratory exercises

MAY 2013 -**LECTURER**

OCT 2013 College of Information Technology and Engineering,

Purbanchal University, Kathmandu, Nepal

Subject: Image Processing and Pattern Recognition

Tasks: Taught lecture and tutorial module as per existing syllabus. Designed, conducted and graded laboratory exercises and homework assignments.

WORK EXPERIENCES

JUNE 2013-SOFTWARE DEVELOPER

SEPT 2013 Technology Sales Pyt. Ltd. Kathmandu, Nepal

Responsibilities: Developed an user-friendly interface in Visual C# for smartcard 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.

SCHOLARSHIPS, AWARDS AND GRANTS

MAR 2016 **AWS Research Grant**

Applied with Dr. Christopher Kanan. worth \$15000 in AWS credits.

Grant from Alternative Energy Promotion Center (Contract number: 245160) APR 2013

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 Ceneter, 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.

College Fellowship Scholarship 2008-2012

Granted by Tribhuvan University based on Merit per semester. Fellowship

granted on six out of eight semesters.

SKILLS

Deep Learning Packages | Caffe, Matconvnet and (Basic) Theano

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, Ba-

sic 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, LATEX

LANGUAGES

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

• IEEE Student Member

OTHER INTERESTS AND ACTIVITIES

PHOTOGRAPHY I enjoy

I enjoy taking pictures and learning new techniques. But I am not as engaged as I used to be

- Top-25 in "Hamro Nepal" (Translated "Our Nepal") Competition/Exhibition by ARTUDIO, 2012
- Finalist in "The Best of Nepal" photo Exhibition by ROTASIA-2012

IN SPARE TIME

I enjoy reading (fiction and non-fiction), Hiking, Board Games, Keeping up with current affairs and tech advancements.