# Bikash Gyawali

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#### EDUCATION

2013 – 2016 **PhD in Computer Science**, Université de Lorraine, France.

**Specialisation: Computational Linguistics** 

2009 – 2011 Erasmus Mundus Masters in Computer Science, Université de Lorraine, France

& University of Malta, Malta.

**Specialisation: Computational Linguistics** 

2003 – 2007 **Bachelor in Information Technology**, Purbanchal University, Nepal.

## SCHOLARSHIPS

Google Grant Google Grant for attending Lisbon Machine Learning School (LxMLS 2014).

PhD Study **Doctoral Contract, 2013** – **2015**, French Research and Education Ministry.

Masters Study **Erasmus Mundus Scholarship, 2009 – 2011**, European Commission.

Bachelor Study Full tuition fee waiver, 2003 – 2007, Himalayan WhiteHouse Int'l College.

#### THESES

PhD Thesis Surface Realisation from Knowledge Bases.

2016 I proposed novel methods for generating textual descriptions of RDF triples based on learning from training examples of KB/text pairs.

Masters Thesis Answering Factoid Questions via Ontologies: A Natural Language Genera-2011 tion Approach.

I proposed an approach for generating questions and answers over concepts and relations present in ontologies.

#### WORK

December 2015 **Post Doctoral Researcher**, CNRS, France.

- Present My current research focuses on training deep neural networks to map natural language text

to formal models (Semantic Parsing) and vice versa (Generation).

November 2008 IT Officer, Nepal SBI Bank Limited, Kathmandu, Nepal.

- August 2009 I worked on the design and implementation of the bank's inter-branch computer network.

## **PUBLICATIONS**

- ModelWriter: Text and Model-Synchronized Document Engineering Platform, Ferhat Erata, Claire Gardent, Bikash Gyawali, Anastasia Shimorina, Yvan Lussaud, Bedir Tekinerdogan, Geylani Kardas & Anne Monceaux, 32nd IEEE/ACM International Conference on Automated Software Engineering (ASE 2017), Illinois, U.S.
- 2017 Mapping Natural Language to Description Logic, Bikash Gyawali, Anastasia Shimorina, Claire Gardent, Samuel Cruz-Lara & Mariem Mahfoudh, 14th Extended Semantic Web Conference (ESWC 2017), Portoroz, Slovenia.
- 2015 A Domain Agnostic Approach to Verbalizing n-ary Events without Parallel Corpora, Bikash Gyawali, Claire Gardent & Christophe Cerisara, 15th European Workshop on Natural Language Generation (ENLG 2015), Brighton, U.K.
- 2015 Automatic Verbalisation of Biological Events, Bikash Gyawali, Claire Gardent & Christophe Cerisara, 3rd International Workshop on Definitions in Ontologies (IWOOD 2015), Lisbon, Portugal.
- **Surface Realisation from Knowledge-Bases**, Bikash Gyawali & Claire Gardent, 52nd Annual Meeting of the Association for Computational Linguistics (ACL 2014), Baltimore, U.S.
- 2013 LOR-KBGEN, A Hybrid Approach to Generating from the KBGen Knowledge-Base, Bikash Gyawali & Claire Gardent, 14th European Workshop on Natural Language Generation (ENLG 2013), Sofia, Bulgaria.

#### TEACHING EXPERIENCE

March 2016 – **Python Programming Instructor**, Université de Lorraine, Nancy, France.

June 2016 – I delivered Python programming sessions to Bachelor 3rd year students in Computer Science.

November 2007 Lecturer, Himalayan WhiteHouse Int'l College, Kathmandu, Nepal.

November I taught introductory level programming courses to students in Computer Science depart 2008 ment.

August 2002 – **Teaching Assistant**, Birendra Sainik Awasiya Mahavidhyalaya, Bhaktapur, Nepal. November 2003 I worked as an academic mentor to junior high school students.

## TRAININGS

LxMLS 2014 4th Lisbon Machine Learning Summer School, Lisbon, Portugal.

Coursera Machine Learning.

## PROJECT CONTRIBUTIONS

European Project ModelWriter: Building integrated authoring environment for text and KB. I worked as the lead developer for building Semantic Parser engine for the project. Achieved work package goals in time and represented our team in several meetings, reviews and demos.

# HANDS-ON EXPERIENCE

NLP Tools Stanford CoreNLP, Weka, NLTK

ML Tools Deeplearning4j, PyTorch

Programming Java, Python, JavaScript, HTML

Others Unix/Windows, Git, LATEX

### RESEARCH INTERESTS

- Deep Learning Approaches to NLP
- Semantic Parsing/Generation
- Information Retrieval