

Dekun Wu

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EDUCATION

York University, Toronto, Canada

Sep 2016 - May 2019

Master of Computer Science - Department of Electrical Engineering and Computer Science

- Supervisor: Prof. Hui Jiang
- Supervisory committee members: Prof. Manos Papagelis

Sichuan University, Chengdu, China

Sep 2011 - Jun 2015

Bachelor of Software Engineering - School of Software Engineering

RESEARCH INTERESTS

Deep Learning, Knowledge Base Question Answering, Entity Linking, Named Entity Recognition, Text Generation, Question Generation, Relation Extraction

AWARDS

YU Graduate Fellowship - Masters International, York University,

2016-2018

Outstanding Undergraduate Student Award, Sichuan University (28/345),

2014

First-class Scholarship, Sichuan University (21/345),

2014

Third-class Scholarship, Sichuan University (53/360),

2013

POSITIONS HELD

StatNLP Lab

Jul 2019-Present

Singapore University of Technology and Design

Singapore

Visiting Student (Supervised by Prof. Wei Lu)

Created a Text Generation dataset consisting of 110,000 triplet-question pairs extracted from Wikidata and Wikipedia respectively. Ran some baseline models such as seq2seq and GraphTransformer of which performances are examined by using automatic evaluation metrics: BLEU, ROGUE, TER, etc.

Adopted a seq2seq model with coverage and copy mechanism. Used a graph neural network as an encoder to encode the knowledge graph and an attention-based LSTM decoder to generate corresponding questions.

**IFLYTEK Laboratory for Neural Computing and Machine Learning,
York University**

May 2018-May 2019
Toronto, Canada

Research Assistant (Supervised by Prof. Hui Jiang)

Combined FOFE, a fixed-size, ordinally forgetting encoding method with a deep feed-forward neural network to deal with three Knowledge Base Question Answering (KBQA) subtasks: named entity recognition, entity linking and relation detection. Each subtask is dealt with by a single FOFE model that is stacked upon one another to form a KBQA pipeline. Tested pipeline on two popular datasets and a newly-created dataset and yielded competitive results on all of them.

Collected questions that are independently composed for human contestants in trivia-like competitions from various sources, which are further processed and formatted into a trivia-like KBQA dataset that consists of 28,348 questions. This dataset was released for public use: <https://github.com/infinitecold/FreebaseQA>.

SAP Labs

Sep 2014-Nov 2014

Software Engineer (Intern)

Chengdu, China

Customized SAP Business ByDesign – a cloud ERP product intended for small and medium-sized

enterprises – based on customer requirements such as product form amendments, changing fields and table layouts, revision of data processing logic and adding a report generation function.

TEACHING EXPERIENCE

Department of Engineering and Computer Science
York University
Teaching Assistant

Sep 2016- Aug 2018
Toronto, Canada

Courses: Fundamentals of Data Structure, Advanced Object Oriented Programming, Programming for Mobile Computing (Android Programming)

Duties: Ran weekly lab sessions. Graded assignments. Invigilated and graded the mid-term and final. Held weekly office hours.

PUBLICATIONS

K. Jiang*, **D. Wu***, and H. Jiang, FreebaseQA: A New Factoid QA Data Set Matching Trivia-Style Question-Answer Pairs with Freebase, In Proceedings of *NAACL-HLT 2019* (pp. 318–323). (*** equal contribution, acceptance rate = 21.3%**)

BX. Chen, Raghavender Sahdev, **D. Wu**, Xing Zhao, Manos Papagelis and John K. Tsotsos, Scene Classification in Indoor Environments for Robots using Word Embeddings, In *ICRA 2018 Workshop: Representing a Complex World*.

PREPRINT

D. Wu, N. Nosirova, H. Jiang and M. Xu, A General FOFE-net Framework for Simple and Effective Question Answering over Knowledge Bases, *arXiv:1903.12356*

SKILLS

PROGRAMMING LANGUAGES: C/C++/Java/Python

MACHINE LEARNING TOOLKITS: Tensorflow/Pytorch

STANDARDIZED TESTS

TOEFL COMPUTER-BASED: Total: 106 (R: 29 L: 29 S: 22 W: 26)

GRE COMPUTER-BASED: Total: 324 + 3.5 (Q: 166 V: 158 AW: 3.5)