



سخنرانی‌های علمی

پژوهشگاه دانش‌های بنیادی
پژوهشکده علوم کامپیوتر

Deep Learning for Human Language Understanding and Generation

By: Dr. Gholamreza Haffari
Monash University

Abstract

Machine translation is being revolutionized by the introduction of the neural sequence-to-sequence transduction models. However, it is challenging to train high-quality neural translation models in small training data conditions, as usually these models have lots of parameters. Moreover, generating a translation for a new sentence -- aka decoding -- in such models is difficult, as their exponentially large search spaces do not lend themselves to dynamic programming.

In this talk, I give a high level overview on our research to tackle various issues of neural models for human language understanding and generation. More specifically, I cover our work on (i) how to learn these models with minimal human supervision using active learning and multitask learning approaches, (ii) how to decode from these models using continuous optimisation techniques, and (iii) how to inject semantics to these models to improve their understanding/generation capabilities of human language.

Biography

Reza's research interests lie in Artificial Intelligence, at the intersection of natural language processing and machine learning, including topics such as machine translation, language modelling, parsing, structured prediction, deep learning, reinforcement learning, probabilistic graphical models, deep generative models, etc. He is an Associate Professor and the Director of the Graduate Diploma of Data Science in the Faculty of IT, Monash University. He is a recipient of Google Faculty Research Award (twice in 2018 and 2019) and Amazon Research Award (2019). His research has been supported by Australian Research Council, Google Research, Amazon Research, Adobe Research, and NVIDIA. He has co-led research teams at Fred Jelinek Summer Workshop Series by Johns Hopkins University on human language processing at Carnegie Mellon University (2017) and University of Washington (2015). He earned his PhD from Simon Fraser University in 2009, and was a Postdoctoral Fellow at the University of British Columbia in 2010-2011.

زمان: یکشنبه ۹۸/۴/۲ - ساعت ۱۵

مکان: فرمانیه - خیابان شهید لواسانی - جنب برج کوه نور - نبش خیابان فرین - پژوهشگاه دانش‌های بنیادی - طبقه همکف

***** شرکت برای عموم علاقه‌مندان آزاد است *****