Guanlin Li
Curriculum vitae

✍ Harbin Institute of Technology, Harbin, Heilongjiang Province, China
☎ +86 18811438526
✉ epsilonlee.green@gmail.com
ϟ epsilon-lee.github.io

Education

2011 – 2015 **BA. in Computer Science and Technology**
Central China Normal University
GPA: 90.6 3/143

2012 – 2014 **Minor in Linguistics**
Central China Normal University

2015 – now **PhD Candidate in Computer Technology**
Harbin Institute of Technology
Expected graduation: 2020

Research Interest

Interactive Learning Concerning how a learning agent or model actively (intrinsic/extrinsic-motivated) use exploration (Thompson, Bandit etc.), Bayesian posterior sampling, human-in-the-loop to gather or query for new experience or knowledge and their applications in NLP.

Causality-augmented Representation Learning Concerning learning representations through causal reasoning mechanism so that disentanglement property can be endowed and enhanced. This is extremely helpful for text generation, since attributes of text can be controllable, and edition of text can be computable within vector space.

Communication skills

Chinese Native speaker
English Fluent (TEM8 73/100)

Software skills

Good level Python, Java
Intermediate C, C++, git, Matlab
Basic level Shell, Linux

Research Experience

June 2017 – July 2017
Microsoft Research Asia, Beijing, China
A Cluster-to-Cluster Framework for Neural Machine Translation

This work is motivated by RAML. We transforms the original point-to-point translation loss to a cluster-to-cluster one via generative augmenting both source and target sides' training point to a cluster of points. The points within a cluster can smooth the training, prevent overfitting and make the model more robust to noise. Experiments on WMT DE-EN, NIST ZH-EN translation tasks demonstrate significance of our method over seq2seq+att, and RAML baselines.

March 2017 – June 2017
Microsoft Research Asia, Beijing, China
Generative Bridging Networks for Neural Sequence Prediction

This work tries to provide a systematic way of designing data augmenters which could provide target examples for training a neural sequence predictor with different willing properties, such as smoothing, easy-to-learn etc. Experimental results show improvement on both neural machine translation and abstractive summarization tasks.

October 2016 – now (continually)
Machine Translation Lab, HIT
Discourse Relation Recognition

These are series of works try to formulate DRR (Discourse relation recognition) in different machine learning paradigms concerning task's domain specialty. During Oct. 2016 - Dec. 2016, several attention mechanisms, such as hard attention, recursive attention, are explored. Since Dec. 2017, 'active attention querying through agreement between discriminative/generative' is formulated. Currently, no decent experimental result is achieved.

Teaching Experience

September 2017 – now
Machine Translation Lab, HIT
Evening Tea Party: Practicals in NLP

Based on Graham Neubig's Practicals in NLP Tutorial, CMU CS11-747, and Stanford CS224d, we re-organize the materials to be suitable for our audience. The evening tea party has a temporary web page.The aim of this party is to provide fundamentals of learning, intuitions of understanding and

practicals of coding and other engineering tricks to keen thinkers. The covered topics are scattered in both statistical methods and deep methods for NLP.

OCTOBER 2016 – DECEMBER 2017

Machine Translation Lab, HIT

Deep Learning Basics and its Applications in NLP

Five lectures are given based on the Deep Learning book. Topics ranging from basic feed-forward neural networks, convolutional neural networks, recurrent neural networks, useful architectures (enc-dec, attention, gating mechanisms etc.). Three examples, namely learning word representation, convolutional sentence representation for classification and structured prediction are demonstrated with lately research papers.

SPECIALTIES

- Guitar, Er hu (a traditional Chinese instrument), other forms of music

FAVORITE QUOTE

> *"But you go to a great school, not for knowledge so much as for arts and habits; for the habit of attention, for the art of expression, [...] for the art of entering quickly into another person's thoughts, [...] for taste, for discrimination, for mental courage and mental soberness."* — **William Johnson Corg**

> *"The reasonable man adapts himself to the world: the unreasonable one persists in trying to adapt the world to himself. Therefore, all progress depends on the unreasonable man."* — **George Bernard Shaw**