ACL 2018

Relevance of Linguistic Structure in Neural Architectures for NLP

Proceedings of the Workshop

July 19, 2018
Melbourne, Australia

Order copies of this and other ACL proceedings from:

Association for Computational Linguistics (ACL)
209 N. Eighth Street
Stroudsburg, PA 18360
USA
Tel: +1-570-476-8006
Fax: +1-570-476-0860
acl@aclweb.org

ISBN 978-1-948087-42-1

Preface

Welcome to the ACL Workshop on the Relevance of Linguistic Structure in Neural Architectures for NLP (RELNLP). The workshop took place on July 19th 2018, collocated with the 56th Annual Meeting of the Association for Computational Linguistics in Melbourne, Australia.

There is a long standing tradition in NLP focusing on fundamental language modeling tasks such as morphological analysis, POS tagging, parsing, WSD or semantic parsing. In the context of end-user NLP tasks, these have played the role of enabling technologies, providing a layer of representation upon which more complex tasks can be built. However, in recent years we have witnessed a number of success stories involving end-to-end architectures trained on large data and making little or no use of a linguistically-informed language representation layer. This workshop's focus was on the role of linguistic structures in the neural network era. We aimed to gauge their significance in building better, more generalizable NLP.

The workshop has accepted 2 oral presentations and a total of 7 poster presentations. The program also included four invited speakers as well as a panel discussion. We would like to thank our speakers: Chris Dyer, Emily Bender, Jason Eisner and Mark Johnson as well as our program committee for their work in assuring high quality and on time reviews.

Georgiana Dinu, Miguel Ballesteros, Avirup Sil, Sam Bowman, Wael Hamza, Anders Søgaard, Tahira Naseem and Yoav Goldberg

Organizers:

Georgiana Dinu, Amazon AWS
Miguel Ballesteros, IBM Research
Avirup Sil, IBM Research
Sam Bowman, NYU
Wael Hamza, Amazon Alexa
Anders Søgaard, University of Copenhagen
Tahira Naseem, IBM Research
Yoav Goldberg, Bar Ilan University

Program Committee:

Eneko Agirre, Basque Country University, Spain
Yonatan Belinkov, CSAIL, MIT, USA
Jose Camacho-Collados, Sapienza-Universty of Rome, Italy
Xavier Carreras, Naver Labs Europe, France
Ryan Cotterell, Johns Hopkins University, USA
Jacob Eisenstein, Georgia Institute of Technology, USA
Jason Eisner, Johns Hopkins University, USA
Katrin Erk, University of Texas at Austin, USA
Luis Espinosa-Anke, Cardiff University, UK
Manaal Faruqui, Google Research, USA
Orhan Firat, Google Research, USA
Markus Freitag, Google Research, USA
Ramón Fernández-Astudillo, Unbabel, Portugal
Matt Gardner, Allen Institute for Artificial Intelligence, USA
Carlos Gómez-Rodrígez, University of A Coruña, Spain
Benjamin Han, Microsoft AI + R, USA
Douwe Kiela, FAIR, USA
Eliyahu Kiperwasser, Bar-Illan University, Israel
Adhiguna Kuncoro, Deepmind and University of Oxford, UK
Sandra Kübler, Indiana University, USA
Mirella Lapata, University of Edinburgh, UK
Tao Lei, ASAPP, New York, NY
Roger Levy, MIT, USA
Haitao Mi, Ant Financial, USA
Maria Nadejde, University of Edinburgh, UK
Ramesh Nallapati, Amazon, USA
Karthik Narasimhan, Open AI, USA
Joakim Nivre, Uppsala University, Sweden
Barbara Plank, University of Groeningen, Netherlands
Tamara Polajnar, Cambridge University/Mrs. Wordsmith, UK
Alessandro Raganato, Sapienza-Universty of Rome, Italy
Sebastian Ruder, Insight Research Centre for Data Analytics, Ireland
Alexander Rush, Harvard University, USA
Karl Stratos, Toyota Technological Institute at Chicago, USA
Sara Stymme, Uppsala University, Sweden

Yulia Tsetkov, Carnegie Mellon University, USA
Eva Maria Vecchi, University of Stuttgart, Germany
Adina Williams, NYU, USA
Bing Xiang, Amazon AWS, USA

Invited Speakers:

Chris Dyer, DeepMind, Carnegie Mellon University
Emily Bender, University of Washington
Jason Eisner, Johns Hopkins University
Mark Johnson, Macquarie University

Table of Contents

Conference Program

Thursday, June 19, 2018

8:50–9:00 *Opening Remarks*

Session 1

9:00–10:00 *Invited Talk: Chris Dyer*

10:00–10:20 *Compositional Morpheme Embeddings with Affixes as Functions and Stems as Arguments*
Daniel Edmiston and Karl Stratos

10:20–11:00 *Break*

Session 2

11:00–12:00 *Invited Talk: Mark Johnson*

12:00–12:20 *Unsupervised Source Hierarchies for Low-Resource Neural Machine Translation*
Anna Currey and Kenneth Heafield

12:20–13:30 *Lunch*

Session 3

13:30–14:30 *Poster session*

14:30–15:30 *Invited Talk: Jason Eisner*

15:30–16:00 *Break*

Session 4

16:00–17:00 *Invited Talk: Emily Bender*

17:00–18:00 *Panel discussion*