SPNLP 2021

The 5th Workshop on Structured Prediction for NLP

Proceedings of the Workshop

August 6th, 2021
Bangkok, Thailand (online)

Introduction

Welcome to the Fifth Workshop on Structured Prediction for NLP!

Structured prediction has a strong tradition within the natural language processing (NLP) community, owing to the discrete, compositional nature of words and sentences, which leads to natural combinatorial representations such as trees, sequences, segments, or alignments, among others. It is no surprise that structured output models have been successful and popular in NLP applications since their inception. Many other NLP tasks, including, but not limited to: semantic parsing, slot filling, machine translation, or information extraction, are commonly modeled as structured problems, and accounting for said structure has often lead to performance gain.

This workshop follows the four previous successful editions in 2020, 2019, 2017 and 2016 on Structured Prediction for NLP, as well as the closely related ICML 17 Workshop on Deep Structured Prediction. This year we received 18 submissions and, after double-blind peer review, 10 were accepted (2 of which are non-archival papers) for presentation in this edition of the workshop, all exploring this interplay between structure and neural data representations, from different, important points of view. The program includes work on structure-informed representation learning, leveraging structure in problems like parsing, hierarchical classification, etc. and structured feedback for sequence-to-sequence models. Our program also includes six invited presentations from influential researchers.

Our warmest thanks go to the program committee – for their time and effort providing valuable feedback, to all submitting authors – for their thought-provoking work, and to the invited speakers – for doing us the honor of joining our program.

We are profoundly saddened by the loss of Arzoo Katiyar, who was our beloved program committee member since many previous editions. Our deepest condolences to her family and friends.

Zornitsa Kozareva
Sujith Ravi
Priyanka Agrawal
André Martins
Andreas Vlachos

Organizing Committee

Zornitsa Kozareva, Facebook AI, USA
Sujith Ravi, SliceX AI, USA
Priyanka Agrawal, Booking.com, Netherlands
André F. T. Martins, Instituto Superior Técnico, Instituto de Telecomunicações, and Unbabel, Portugal
Andreas Vlachos, University of Cambridge, UK

Program Committee

Heng Ji, University of Illinois Urbana-Champaign, USA
Vivek Srikumar, University of Utah, USA
Roi Reichart, Technion - Israel Institute of Technology, Israel
Kevin Gimpel, TTI Chicago, USA
Ivan Titov, University of Edinburgh, Scotland
Wilker Aziz, University of Amsterdam, Netherlands
Hiko Schamoni, Heidelberg University, Germany
Arzoo Katiyar, Cornell University, USA
Tianze Shi, Cornell University, USA
Sabrina Mielke, Johns Hopkins University, USA
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Amr Sharaf, University of Maryland, USA
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Michail Korakakis, University of Cambridge, UK
Ran Zmigrod, University of Cambridge, UK
Chunchuan Lyu, University of Edinburgh, UK
Parisa Kordjamshidi,Michigan State University, USA
Julius Cheng, University of Cambridge, UK
Patrick Fernandes, Instituto Superior Técnico, Portugal, and Carnegie Mellon University, USA

Invited Speakers

Heng Ji, University of Illinois Urbana-Champaign
Rada Mihalcea, University of Michigan
Scott Wen-tau Yih, Facebook AI Research
Carolin Lawrence, NEC Labs Europe
Iryna Gurevych, Technical University of Darmstadt

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Conference Program

6th August 2021

0900–0910   *Opening Remarks*

09:10–09:50   *Invited Talk 1*
Iryna Gurevych (Technical University Darmstadt, Germany)

09:50–10:30   *Invited Talk 2*
Carolin Lawrence (NEC Labs Europe, Germany)

10:30–10:40   *Break*

10:40–11:40   *Poster Session I*

RewardsOfSum: Exploring Reinforcement Learning Rewards for Summarisation
Jacob Parnell, Inigo Jauregi Unanue and Massimo Piccardi

SmBoP: Semi-autoregressive Bottom-up Semantic Parsing
Ohad Rubin and Jonathan Berant

11:40–12:20   *Invited Talk 3*
Rada Mihalcea (University of Michigan, USA)

12:20–12:35   *Learning compositional structures for semantic graph parsing*
Jonas Groschwitz, Meaghan Fowlie and Alexander Koller

12:35–12:50   *Offline Reinforcement Learning from Human Feedback in Real-World Sequence-to-Sequence Tasks*
Julia Kreutzer, Stefan Riezler and Carolin Lawrence

12:50–13:50   *Break*

13:50–14:30   *Invited Talk 4*
Heng Ji (University of Illinois Urbana-Champaign, USA)

6th August 2021 (continued)

14:30–14:45   *Mode recovery in neural autoregressive sequence modeling*
Ilia Kulikov, Sean Welleck and Kyunghyun Cho

14:45–15:45   Poster Session II

Using Hierarchical Class Structure to Improve Fine-Grained Claim Classification
Erenay Dayanik, Andre Blessing, Nico Blokker, Sebastian Haunss, Jonas Kuhn,
Gabriella Lapesa and Sebastian Padó

A Globally Normalized Neural Model for Semantic Parsing
Chenyang Huang, Wei Yang, Yanshuai Cao, Osmar Zaïane and Lili Mou

15:45–16:15   Break

16:15–16:30   *Comparing Span Extraction Methods for Semantic Role Labeling*
Zhisong Zhang, Emma Strubell and Eduard Hovy

16:30–17:10   *Invited Talk 5*
Scott Wen-tau Yih (Facebook AI Research, USA)

17:10–17:20   *Closing Remarks*