AACL-IJCNLP 2020

The 1st Conference of the Asia-Pacific Chapter of the Association for Computational Linguistics and the 10th International Joint Conference on Natural Language Processing

Proceedings of the Conference

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Message from the General Chair

Welcome to the 1st Conference of the Asia-Pacific Chapter of the Association for Computational Linguistics and the 10th International Joint Conference on Natural Language Processing (AACL-IJCNL-2020) virtually hosted by Soochow University, China. I am honored to be the General Chair of the first conference of AACL and am excited to welcome you to the event.

Research in NLP in the Asia-Pacific region is rapidly growing. This is evident from the increasing number of paper submissions and participants in recent NLP conferences worldwide. Many innovative NLP theory and applications are presented in these events. To better share NLP innovations in the region, the Association for Computational Linguistics (ACL) established the Asia-Pacific Chapter of (AACL) in 2018. AACL provides a regional focus for ACL members in Asia-Pacific region to promote and to facilitate cooperation and information exchange among related scientific and professional societies and individuals in the region. This is the first bi-annual meeting of the Chapter and is jointly organized with the 10th International Joint Conference on Natural Language Processing (IJCNLP), which is the bi-annual conference of the Asia Federation of Natural Language Processing (AFNL), a well-established association sharing the same missions as AACL. There is a saying "1+1 > 2" in China and this joint conference truly reflects that. AACL-IJCNLP-2020 is just a beginning, AACL will initiate more collaborations with AFNLP and other regional associations in the future so as to let the world appreciate more the work of the NLP communities in Asia-Pacific.

Soochow is a scenic and historic Chinese city. The city's canals, stone bridges, pagodas and meticulously designed gardens have contributed to its status as one of the top tourist attractions in China. Noticeably, the Classical Gardens of Soochow were added to the list of the UNESCO World Heritage Sites in 1997 and 2000. Soochow is often dubbed the "Venice of the East" or "Venice of China". These attractions would have added another flavor to the AACL-IJCNLP-2020 blending it a cultural and technical event. Several cultural tours and social events were originally planned. They would have been eye-opening to the participants. However, a face-to-face physical conference gave way to the COVID-19 pandemic. After a long period of observation since the beginning of the year, due to the growing severity of the pandemic worldwide, the local organizing committee recommended to organize AACL-IJCNL-2020 virtually in September. This was a difficult decision; but for safety reason, the team and I believed this was the right choice. Organization of a virtual conference was unconventional. It created a new set of challenging problems unfamiliar to the team. Fortunately, ACL2020 took place before AACL-IJCNLP-2020 and we learned much from their experience.

The program co-chairs Kevin Knight and Hua Wu did an excellent job in putting together a very interesting program with 92 papers from submissions worldwide. The program also includes two star keynote speakers, Percy Liang, Stanford University, and Song-Chun Zhu, Peking University, Tsinghua University, and UCLA, to share with us their insights in "semantic parsing" and "explainable AI" respectively. These are hot topics both in pure and applied research. Selecting the papers from nearly 400 submissions was itself a difficult task but it was compounded by the complication in the design of the virtual program. Kevin and Hua had to take into account of the different time zones of the authors and audience and was rather tricky. Nevertheless, after many iterations, they came up with the current exciting program.

The conference is accompanied by 7 workshops and 6 tutorials. We participated in the joint selection processes with other ACL related conferences. The workshop co-chairs, Wei Gao and Lu Wang as well as the tutorial co-chairs Timothy Baldwin and Fei Xia did a wonderful job to select these very educational and trendy topics. In addition, despite the busy program schedule, with the dedication of the student workshop co-chairs, Lun-Wei Ku and Vincent Ng, we also put up a student research workshop; and with the dedication of the demo co-chairs, Douwe Kiela and Derek Wong, we accepted 7 system projects

out of 15 for demonstration. As a part of ACL's Diversity and Inclusion (D&I) initiative, we introduced the Widening NLP (WiNLP) session in the first day of the conference. Xiangyu Duan and Tirthankar Ghosal, the D&I co-chairs, were very creative in organizing the session and other virtual D&I gathering events.

The publication co-chairs Steve DeNeefe and Satoshi Sekine worked diligently and carefully to collect the accepted papers for compilation of the electronic proceedings. Following the ACL guidelines, the papers are also included in the ACL Anthology. Since AACL-IJCNLP-2020 is a virtual conference, we decided not to compile a physical handbook. As such, information about the conference is made available online.

The local organization committee was chaired by Min Zhang. As usual, LOC is the committee which does all the 'dirty' jobs, ie hands-on work. Under Min's leadership, LOC did a fantastic job in looking after all the details in local arrangement. Organizing a virtual conference was new to Min and the LOC. They put extra time and effort to ensure every single organization details were properly arranged. I also appreciated the frustration of the LOC at the beginning. They booked all the venues while the spreading of the COVID19 pandemic showed no sign of slowing down. We waited until September before we decided not to go for the face-to-face option, which left us with rather little ime to prepare for the virtual conference. I am glad that we finally make it.

Working closely with the LOC, the remote presentation co-chairs, Nanyun Peng, Zhongqing Wang and Muyun Yang liaised with the program committee, demonstration committee, workshop committee, and tutorial committee to ensure presentations would be done smoothly. The webmaster, Junhui Li, was also part of the LOC, to ensure information related to the conference was timely distributed. Mirella Lapata, Haizhou Li and Qun Liu, the publicity co-chairs, made use of this conference information for international publicity through different channels, eg ACL, SIGIR, AAAI etc communities, and media. Eg. Instagram, Twitter, Facebook, Email, Wechat, etc.

Last but not the least, I would like to thank Priscilla Rasmussen, business manager of ACL HQ, for her invaluable advice throughout the AACL-IJCNLP-2020 project. She is definitely the most knowledgeable person in ACL event matters. And I am grateful to Haifeng Wang, President of AACL, and Chengqing Zong, President of AFNLP, for their trust. Undoubtedly, without their unfailing support, AACL-IJCNLP-2020 would not be possible. Also, thanks are due to Baidu and Huawei, the Diamond level sponsor, as well as Bloomberg and Grammarly for their generosity in supporting our D&I drive.

Enjoy AACL-IJCNLP-2020!

Kam-Fai Wong
General Chair
Hong Kong.

Message from the Program Chairs

Greetings, and welcome to AACL-IJCNLP 2020, the First Conference of the Asia-Pacific Chapter of the Association for Computational Linguistics (AACL) and the Tenth International Joint Conference on Natural Language Processing (IJCNLP)!

The Asia-Pacific Chapter of AACL is the newest chapter of AACL, and its first conference was held in 2020. The AACL-IJCNLP 2020 conference received 392 submissions to the main conference. We accepted 106 papers (73 long, 33 short), for an overall 28.3% acceptance rate. Submissions came from all over the world. Of the 106 accepted papers, 53 were from the Asia-Pacific region (28 from China, 10 from Japan, 7 from India, 3 from Taiwan, 2 from Australia, 2 from South Korea, and 1 from Indonesia), 31 from the Americas (27 from the USA, 3 from Canada, 1 from Brazil), and 22 from Europe and the Middle East (9 from the UK, 5 from Germany, 2 from France, 2 from Israel, 1 from the Netherlands, 1 from Italy, 1 from Denmark, and 1 from Belgium). 14 accepted papers were withdrawn by the authors, due to simultaneous submission to other conferences, resulting in a total of 92 papers presented at the main conference of AACL-IJCNLP 2020.

Like most conferences in 2020, AACL was a virtual one. Conference organizers opted for a real-time meeting, with papers grouped into topical sessions as done previously for in-person conferences. Authors further pre-recorded talks for convenient, off-schedule viewing.

We had two keynote addresses this year, one by Percy Liang of Stanford University, and one by Song-Chun Zhu of Peking University, Tsinghua University, and UCLA. Many thanks to Professors Liang and Zhu for exciting the AACL-IJCNLP participants with their sweeping talks!

For the main conference, 46 Area Chairs oversaw 392 submissions to 18 tracks. We would like to thank the Area Chairs and reviewers for their hard work. In addition, thanks to Rich Gerber of SoftConf for his always-timely help and Natalie Schluter for sharing the ACL 2020 paper-review matching tool with us. We would also like to thank the General, Local, and Publication Chairs for guidance and assistance in creating the main conference program. Finally, many thanks to the authors who carried out the research and submitted their work to AACL-IJCNLP 2020. We hope that the new AACL will continue to be a vibrant place to exchange research and ideas!

Kevin Knight, DiDi Labs
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Conference Program

Saturday, Dec. 5 (all sessions are scheduled between 8:00 and 24:00 UTC +8)

8:45–9:00 ***Opening Remarks***

9:00–10:00 ***Keynote***

10:00–11:00 **Session 1A: Machine Translation and Multilinguality I**

10:00–10:20 *Touch Editing: A Flexible One-Time Interaction Approach for Translation*
Qian Wang, Jiajun Zhang, Lemao Liu, Guoping Huang and Chengqing Zong

10:20–10:35 *Can Monolingual Pretrained Models Help Cross-Lingual Classification?*
Zewen Chi, Li Dong, Furu Wei, Xianling Mao and Heyan Huang

10:00–11:00 **Session 1B: Sentiment Analysis and Argument Mining I**

10:00–10:20 *Rumor Detection on Twitter Using Multiloss Hierarchical BiLSTM with an Attenuation Factor*
Yudianto Sujana, Jiawen Li and Hung-Yu Kao

10:20–10:40 *Graph Attention Network with Memory Fusion for Aspect-level Sentiment Analysis*
Li Yuan, Jin Wang, Liang-Chih Yu and Xuejie Zhang

10:40–10:55 *FERNet: Fine-grained Extraction and Reasoning Network for Emotion Recognition in Dialogues*
Yingmei Guo, Zhiyong Wu and Mingxing Xu

Saturday, Dec. 5 (all sessions are scheduled between 8:00 and 24:00 UTC +8) (continued)

10:00–11:00 Session 1C: Information Retrieval and Document Analysis I

10:00–10:20 *SentiRec: Sentiment Diversity-aware Neural News Recommendation*
Chuhan Wu, Fangzhao Wu, Tao Qi and Yongfeng Huang

10:20–10:40 *BCTH: A Novel Text Hashing Approach via Bayesian Clustering*
Ying Wenjie, Yuquan Le and Hantao Xiong

10:40–10:55 *Lightweight Text Classifier using Sinusoidal Positional Encoding*
Byoung-Doo Oh and Yu-Seop Kim

11:00–12:00 Session 2A: Machine Learning for NLP I

11:00–11:20 *Towards Non-task-specific Distillation of BERT via Sentence Representation Approximation*
Bowen Wu, Huan Zhang, MengYuan Li, Zongsheng Wang, Qihang Feng, Junhong Huang and Baoxun Wang

11:20–11:35 *A Simple and Effective Usage of Word Clusters for CBOW Model*
Yukun Feng, Chenlong Hu, Hidetaka Kamigaito, Hiroya Takamura and Manabu Okumura

11:35–11:50 *Investigating Learning Dynamics of BERT Fine-Tuning*
Yaru Hao, Li Dong, Furu Wei and Ke Xu

Saturday, Dec. 5 (all sessions are scheduled between 8:00 and 24:00 UTC +8) (continued)

11:00–12:00 Session 2B: Tagging, Chunking, Syntax, and Parsing I

11:00–11:15 *Second-Order Neural Dependency Parsing with Message Passing and End-to-End Training*
Xinyu Wang and Kewei Tu

11:15–11:30 *High-order Refining for End-to-end Chinese Semantic Role Labeling*
Hao Fei, Yafeng Ren and Donghong Ji

11:00–12:00 Session 2C: Knowledge Graph

11:00–11:20 *Exploiting WordNet Synset and Hypernym Representations for Answer Selection*
Weikang Li and Yunfang Wu

11:20–11:35 *A Simple Text-based Relevant Location Prediction Method using Knowledge Base*
Mei Sasaki, Shumpei Okura and Shingo Ono

12:00–14:00 ***Lunch Break***

14:00–15:00 Session 3A: Dialogue and Interactive Systems I & Phonology, Morphology and Word Segmentation I

14:00–14:20 *Learning Goal-oriented Dialogue Policy with opposite Agent Awareness*
Zheng Zhang, Lizi Liao, Xiaoyan Zhu, Tat-Seng Chua, Zitao Liu, Yan Huang and Minlie Huang

14:20–14:40 *An Empirical Study of Tokenization Strategies for Various Korean NLP Tasks*
Kyubyong Park, Joohong Lee, Seongbo Jang and Dawoon Jung

Saturday, Dec. 5 (all sessions are scheduled between 8:00 and 24:00 UTC +8) (continued)

14:00–15:00 Session 3B: NLP Applications I

14:00–14:20 *BERT-Based Neural Collaborative Filtering and Fixed-Length Contiguous Tokens Explanation*
Reinald Adrian Pugoy and Hung-Yu Kao

14:20–14:40 *Transformer-based Approach for Predicting Chemical Compound Structures*
Yutaro Omote, Kyoumoto Matsushita, Tomoya Iwakura, Akihiro Tamura and Takashi Ninomiya

14:40–14:55 *Chinese Grammatical Correction Using BERT-based Pre-trained Model*
Hongfei Wang, Michiki Kurosawa, Satoru Katsumata and Mamoru Komachi

15:00–16:00 Session 4A: Information Extraction and Text Mining I

15:00–15:20 *Neural Gibbs Sampling for Joint Event Argument Extraction*
Xiaozhi Wang, Shengyu Jia, Xu Han, Zhiyuan Liu, Juanzi Li, Peng Li and Jie Zhou

15:20–15:40 *Named Entity Recognition in Multi-level Contexts*
Yubo Chen, Chuhan Wu, Tao Qi, Zhigang Yuan and Yongfeng Huang

15:00–16:00 Session 4B: Machine Translation and Multilinguality II

15:00–15:20 *A General Framework for Adaptation of Neural Machine Translation to Simultaneous Translation*
Yun Chen, Liangyou Li, Xin Jiang, Xiao Chen and Qun Liu

15:20–15:40 *UnihanLM: Coarse-to-Fine Chinese-Japanese Language Model Pretraining with the Unihan Database*
Canwen Xu, Tao Ge, Chenliang Li and Furu Wei

15:40–16:00 *Towards a Better Understanding of Label Smoothing in Neural Machine Translation*
Yingbo Gao, Weiyue Wang, Christian Herold, Zijian Yang and Hermann Ney

Saturday, Dec. 5 (all sessions are scheduled between 8:00 and 24:00 UTC +8) (continued)

16:00–17:00 Session 5A: Semantics I & Resources and Evaluation I

16:00–16:20 *Comparing Probabilistic, Distributional and Transformer-Based Models on Logical Metonymy Interpretation*
Giulia Rambelli, Emmanuele Chersoni, Alessandro Lenci, Philippe Blache and Chu-Ren Huang

16:20–16:40 *AMR Quality Rating with a Lightweight CNN*
Juri Opitz

16:00–17:00 Session 5B: Summarization and Generation I

16:00–16:20 *Generating Commonsense Explanation by Extracting Bridge Concepts from Reasoning Paths*
Haozhe Ji, Pei Ke, Shaohan Huang, Furu Wei and Minlie Huang

16:20–16:40 *Unsupervised KB-to-Text Generation with Auxiliary Triple Extraction using Dual Learning*
Zihao Fu, Bei Shi, Lidong Bing and Wai Lam

17:00–18:00 Session 6A: Speech, Vision, Robotics, Multimodal Grounding I

17:00–17:20 *Modality-Transferable Emotion Embeddings for Low-Resource Multimodal Emotion Recognition*
Wenliang Dai, Zihan Liu, Tiezheng Yu and Pascale Fung

17:20–17:40 *All-in-One: A Deep Attentive Multi-task Learning Framework for Humour, Sarcasm, Offensive, Motivation, and Sentiment on Memes*
Dushyant Singh Chauhan, Dhanush S R, Asif Ekbal and Pushpak Bhattacharyya

Saturday, Dec. 5 (all sessions are scheduled between 8:00 and 24:00 UTC +8) (continued)

17:00–18:00 Session 6B: Summarization and Generation II

17:00–17:20 *Identifying Implicit Quotes for Unsupervised Extractive Summarization of Conversations*
Ryuji Kano, Yasuhide Miura, Tomoki Taniguchi and Tomoko Ohkuma

17:20–17:40 *Unsupervised Aspect-Level Sentiment Controllable Style Transfer*
Mukuntha Narayanan Sundararaman, Zishan Ahmad, Asif Ekbal and Pushpak Bhattacharyya

18:00–20:00 ***Dinner Break***

20:00–21:00 ***Plenary Session: NLP Review 2020***

21:00–22:00 Session 7A: Dialogue and Interactive Systems II

21:00–21:20 *Energy-based Self-attentive Learning of Abstractive Communities for Spoken Language Understanding*
Guokan Shang, Antoine Tixier, Michalis Vazirgiannis and Jean-Pierre Lorré

21:20–21:35 *Intent Detection with WikiHow*
Li Zhang, Qing Lyu and Chris Callison-Burch

22:00–23:00 Session 8A: NLP Applications II

22:00–22:20 *A Systematic Characterization of Sampling Algorithms for Open-ended Language Generation*
Moin Nadeem, Tianxing He, Kyunghyun Cho and James Glass

22:20–22:40 *Chinese Content Scoring: Open-Access Datasets and Features on Different Segmentation Levels*
Yuning Ding, Andrea Horbach and Torsten Zesch

22:40–22:55 *Analysis of Hierarchical Multi-Content Text Classification Model on B-SHARP Dataset for Early Detection of Alzheimer's Disease*
Renxuan Albert Li, Ihab Hajjar, Felicia Goldstein and Jinho D. Choi

Saturday, Dec. 5 (all sessions are scheduled between 8:00 and 24:00 UTC +8) (continued)

22:00–23:00 Session 8B: Machine Translation and Multilinguality III

22:00–22:20 *An Exploratory Study on Multilingual Quality Estimation*
Shuo Sun, Marina Fomicheva, Frédéric Blain, Vishrav Chaudhary, Ahmed El-Kishky, Adithya Renduchintala, Francisco Guzmán and Lucia Specia

22:20–22:40 *English-to-Chinese Transliteration with Phonetic Auxiliary Task*
Yuan He and Shay B. Cohen

22:40–22:55 *Predicting and Using Target Length in Neural Machine Translation*
Zijian Yang, Yingbo Gao, Weiyue Wang and Hermann Ney

22:00–23:00 Session 8C: Tagging, Chunking, Syntax, and Parsing II & Social Media I

22:00–22:20 *Grounded PCFG Induction with Images*
Lifeng Jin and William Schuler

22:20–22:40 *Heads-up! Unsupervised Constituency Parsing via Self-Attention Heads*
Bowen Li, Taeuk Kim, Reinald Kim Amplayo and Frank Keller

22:40–23:00 *Building Location Embeddings from Physical Trajectories and Textual Representations*
Laura Biester, Carmen Banea and Rada Mihalcea

Saturday, Dec. 5 (all sessions are scheduled between 8:00 and 24:00 UTC +8) (continued)

23:00–24:00 Session 9A: Machine Learning for NLP II

23:00–23:20 *Self-Supervised Learning for Pairwise Data Refinement*
Gustavo Hernandez Abrego, Bowen Liang, Wei Wang, Zarana Parekh, Yinfei Yang and Yunhsuan Sung

23:20–23:40 *A Survey of the State of Explainable AI for Natural Language Processing*
Marina Danilevsky, Kun Qian, Ranit Aharonov, Yannis Katsis, Ban Kawas and Prithviraj Sen

23:40–23:55 *Beyond Fine-tuning: Few-Sample Sentence Embedding Transfer*
Siddhant Garg, Rohit Kumar Sharma and Yingyu Liang

23:00–24:00 Session 9B: Speech, Vision, Robotics, Multimodal Grounding II

23:00–23:20 *Multimodal Pretraining for Dense Video Captioning*
Gabriel Huang, Bo Pang, Zhenhai Zhu, Clara Rivera and Radu Soricut

23:20–23:40 *Systematic Generalization on gSCAN with Language Conditioned Embedding*
Tong Gao, Qi Huang and Raymond Mooney

23:40–24:00 *Are Scene Graphs Good Enough to Improve Image Captioning?*
Victor Siemen Janusz Milewski, Marie-Francine Moens and Iacer Calixto

Saturday, Dec. 5 (all sessions are scheduled between 8:00 and 24:00 UTC +8) (continued)

23:00–24:00 Session 9C: Summarization and Generation III

23:00–23:20 *Systematically Exploring Redundancy Reduction in Summarizing Long Documents*
Wen Xiao and Giuseppe Carenini

23:20–23:35 *A Cascade Approach to Neural Abstractive Summarization with Content Selection and Fusion*
Logan Lebanoff, Franck Dernoncourt, Doo Soon Kim, Walter Chang and Fei Liu

23:35–23:50 *Mixed-Lingual Pre-training for Cross-lingual Summarization*
Ruochen Xu, Chenguang Zhu, Yu Shi, Michael Zeng and Xuedong Huang

23:00–24:00 Session 9D: Demo 1 (4 papers: 3 N.America, 1 Europe)

Sunday, Dec. 6 (all sessions are scheduled between 8:00 and 20:00 UTC +8)

8:00–9:00 Session 10A: Question Answering I

8:00–8:20 *Point-of-Interest Oriented Question Answering with Joint Inference of Semantic Matching and Distance Correlation*
Yifei Yuan, Jingbo Zhou and Wai Lam

8:20–8:35 *Leveraging Structured Metadata for Improving Question Answering on the Web*
Xinya Du, Ahmed Hassan Awadallah, Adam Fourney, Robert Sim, Paul Bennett and Claire Cardie

Sunday, Dec. 6 (all sessions are scheduled between 8:00 and 20:00 UTC +8) (continued)

8:00–9:00 Session 10B: Machine Translation and Multilinguality IV

8:00–8:20 *English Intermediate-Task Training Improves Zero-Shot Cross-Lingual Transfer Too*
Jason Phang, Iacer Calixto, Phu Mon Htut, Yada Pruksachatkun, Haokun Liu, Clara Vania, Katharina Kann and Samuel R. Bowman

8:20–8:35 *STIL - Simultaneous Slot Filling, Translation, Intent Classification, and Language Identification: Initial Results using mBART on MultiATIS++*
Jack FitzGerald

8:35–8:50 *SimulMT to SimulST: Adapting Simultaneous Text Translation to End-to-End Simultaneous Speech Translation*
Xutai Ma, Juan Pino and Philipp Koehn

8:00–9:00 Session 10C: Summarization and Generation IV

8:00–8:20 *Cue Me In: Content-Inducing Approaches to Interactive Story Generation*
Faeze Brahman, Alexandru Petrusca and Snigdha Chaturvedi

8:20–8:40 *Liputan6: A Large-scale Indonesian Dataset for Text Summarization*
Fajri Koto, Jey Han Lau and Timothy Baldwin

8:40–8:55 *Generating Sports News from Live Commentary: A Chinese Dataset for Sports Game Summarization*
Kuan-Hao Huang, Chen Li and Kai-Wei Chang

Sunday, Dec. 6 (all sessions are scheduled between 8:00 and 20:00 UTC +8) (continued)

8:00–9:00 Session 10D: Demo II (3 N.America, 1 Asia)

9:00–10:00 Session 11A: Information Retrieval and Document Analysis II

9:00–9:20 *Massively Multilingual Document Alignment with Cross-lingual Sentence-Mover's Distance*
Ahmed El-Kishky and Francisco Guzmán

9:20–9:40 *Improving Context Modeling in Neural Topic Segmentation*
Linzi Xing, Brad Hackinen, Giuseppe Carenini and Francesco Trebbi

9:40–9:55 *Contextualized End-to-End Neural Entity Linking*
Haotian Chen, Xi Li, Andrej Zukov Gregoric and Sahil Wadhwa

9:00–10:00 Session 11B: Discourse and Pragmatics I

9:00–9:20 *DAPPER: Learning Domain-Adapted Persona Representation Using Pretrained BERT and External Memory*
Prashanth Vijayaraghavan, Eric Chu and Deb Roy

9:20–9:40 *Event Coreference Resolution with Non-Local Information*
Jing Lu and Vincent Ng

9:40–9:55 *Neural RST-based Evaluation of Discourse Coherence*
Grigorii Guz, Peyman Bateni, Darius Muglich and Giuseppe Carenini

Sunday, Dec. 6 (all sessions are scheduled between 8:00 and 20:00 UTC +8) (continued)

9:00–10:00 Session 11C: Resources and Evaluation II

9:00–9:20 *Asking Crowdworkers to Write Entailment Examples: The Best of Bad Options*
Clara Vania, Ruijie Chen and Samuel R. Bowman

10:00–11:00 Session 12A: Question Answering II

10:00–10:20 *MaP: A Matrix-based Prediction Approach to Improve Span Extraction in Machine Reading Comprehension*
Huaishao Luo, Yu Shi, Ming Gong, Linjun Shou and Tianrui Li

10:20–10:40 *Answering Product-related Questions with Heterogeneous Information*
Wenxuan Zhang, Qian Yu and Wai Lam

11:00–12:00 Keynote

12:00–14:00 ***Lunch Break***

14:00–15:00 Session 13A: Semantics II

14:00–14:20 *Two-Step Classification using Recasted Data for Low Resource Settings*
Shagun Uppal, Vivek Gupta, Avinash Swaminathan, Haimin Zhang, Debanjan Mahata, Rakesh Gosangi, Rajiv Ratn Shah and Amanda Stent

14:20–14:35 *Explaining Word Embeddings via Disentangled Representation*
Keng-Te Liao, Cheng-Syuan Lee, Zhong-Yu Huang and Shou-de Lin

Sunday, Dec. 6 (all sessions are scheduled between 8:00 and 20:00 UTC +8) (continued)

14:00–15:00 Session 13B: Knowledge Graph II

14:00–14:20 *Multi-view Classification Model for Knowledge Graph Completion*
Wenbin Jiang, Mengfei Guo, Yufeng Chen, Ying Li, Jinan Xu, Yajuan Lyu and Yong Zhu

14:20–14:40 *Knowledge-Enhanced Named Entity Disambiguation for Short Text*
Zhifan Feng, Qi Wang, Wenbin Jiang, Yajuan Lyu and Yong Zhu

15:00–16:00 Session 14A: Information Extraction and Text Mining II

15:00–15:20 *More Data, More Relations, More Context and More Openness: A Review and Outlook for Relation Extraction*
Xu Han, Tianyu Gao, Yankai Lin, Hao Peng, Yaoliang Yang, Chaojun Xiao, Zhiyuan Liu, Peng Li, Jie Zhou and Maosong Sun

15:20–15:40 *Robustness and Reliability of Gender Bias Assessment in Word Embeddings: The Role of Base Pairs*
Haiyang Zhang, Alison Sneyd and Mark Stevenson

15:00–16:00 Session 14B: NLP Applications III

15:00–15:20 *ExpanRL: Hierarchical Reinforcement Learning for Course Concept Expansion in MOOCs*
Jifan Yu, Chenyu Wang, Gan Luo, Lei Hou, Juanzi Li, Jie Tang, Minlie Huang and Zhiyuan Liu

15:20–15:35 *Vocabulary Matters: A Simple yet Effective Approach to Paragraph-level Question Generation*
Vishwajeet Kumar, Manish Joshi, Ganesh Ramakrishnan and Yuan-Fang Li

Sunday, Dec. 6 (all sessions are scheduled between 8:00 and 20:00 UTC +8) (continued)

15:00–16:00 Session 14C: Social Media and Computational Social Science II

15:00–15:20 *From Hero to Zéroe: A Benchmark of Low-Level Adversarial Attacks*
Steffen Eger and Yannik Benz

15:20–15:35 *Point-of-Interest Type Inference from Social Media Text*
Danae Sánchez Villegas, Daniel Preotiuc-Pietro and Nikolaos Aletras

16:00–17:00 Session 15A: Information Extraction and Text Mining III

16:00–16:20 *Reconstructing Event Regions for Event Extraction via Graph Attention Networks*
Pei Chen, Hang Yang, Kang Liu, Ruihong Huang, Yubo Chen, Taifeng Wang and Jun Zhao

16:20–16:35 *Recipe Instruction Semantics Corpus (RISeC): Resolving Semantic Structure and Zero Anaphora in Recipes*
Yiwei Jiang, Klim Zaporojets, Johannes Deleu, Thomas Demeester and Chris Develder

16:00–17:00 Session 15B: NLP Applications IV

16:20–16:35 *Stronger Baselines for Grammatical Error Correction Using a Pretrained Encoder-Decoder Model*
Satoru Katsumata and Mamoru Komachi

17:00–18:00 Session 16A: Resources and Evaluation III

17:00–17:20 *Sina Mandarin Alphabetical Words:A Web-driven Code-mixing Lexical Resource*
Rong Xiang, Mingyu Wan, Qi Su, Chu-Ren Huang and Qin Lu

17:20–17:40 *IndoNLU: Benchmark and Resources for Evaluating Indonesian Natural Language Understanding*
Bryan Wilie, Karissa Vincentio, Genta Indra Winata, Samuel Cahyawijaya, Xiaohong Li, Zhi Yuan Lim, Sidik Soleman, Rahmad Mahendra, Pascale Fung, Syafri Bahar and Ayu Purwarianti

17:40–18:00 *Happy Are Those Who Grade without Seeing: A Multi-Task Learning Approach to Grade Essays Using Gaze Behaviour*
Sandeep Mathias, Rudra Murthy, Diptesh Kanojia, Abhijit Mishra and Pushpak Bhattacharyya

Sunday, Dec. 6 (all sessions are scheduled between 8:00 and 20:00 UTC +8) (continued)

17:00–18:00 Session 16B: Machine Learning for NLP III

17:00–17:20 *Multi-Source Attention for Unsupervised Domain Adaptation*
Xia Cui and Danushka Bollegala

17:20–17:35 *Compressing Pre-trained Language Models by Matrix Decomposition*
Matan Ben Noach and Yoav Goldberg

18:00–19:00 Session 17A: NLP Applications V & Question Answering III

18:00–18:20 *You May Like This Hotel Because ...: Identifying Evidence for Explainable Recommendations*
Shin Kanouchi, Masato Neishi, Yuta Hayashibe, Hiroki Ouchi and Naoaki Okazaki

18:20–18:40 *A Unified Framework for Multilingual and Code-Mixed Visual Question Answering*
Deepak Gupta, Pabitra Lenka, Asif Ekbal and Pushpak Bhattacharyya

18:00–19:00 Session 17B: Social Media and Computational Social Science III

18:00–18:20 *Toxic Language Detection in Social Media for Brazilian Portuguese: New Dataset and Multilingual Analysis*
João Augusto Leite, Diego Silva, Kalina Bontcheva and Carolina Scarton

18:20–18:35 *Measuring What Counts: The Case of Rumour Stance Classification*
Carolina Scarton, Diego Silva and Kalina Bontcheva

19:00–20:00 ***Closing (Best Paper, Future conf.)***