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Welcome to New Orleans and to NAACL HLT 2018 – the biggest NAACL to date. Natural Language Processing and Computational Linguistics is constantly growing and changing with a constant flow of new methods and topics. Every year also sees an even more exciting and diverse research community, with a steadily increasing number researchers, companies both large and small, and a vibrant community of practitioners and students who are excited at the prospect of taking on the newest challenges of the discipline. This year’s NAACL HLT conference reflects what an exciting time this is for our field, and highlights the vibrancy and vitality of our community.

I feel extremely lucky to be able to work with a fantastic program committee, especially the two extremely dedicated, creative and resourceful program chairs: Amanda Stent and Heng Ji. Their innovations include a new review form, intended to elicit higher quality reviews, the opportunity for authors to review the reviewers, the Test-of-Time awards, and a program where poster and demo sessions run consistently in parallel to the oral sessions, in order to allow the conference to reflect the ever increasing diversity of research topics and the corresponding volume of accepted papers. I am especially excited about the new Test-of-Time papers award session, and hope to see this new innovation become a regular part of ACL conferences.

We have named the Test-of-Time award in memory of Aravind Joshi, who left us this year, after having a huge lifetime impact on our community. We will always remember him for his gentle conversational style, sharp focus, interest in linguistic, computational and mathematical properties of language, and his lifetime commitment to mentoring women in NLP. I feel extremely lucky to have been one of his Ph.D. students.

This year we also introduced an industrial track, with the aim of featuring papers that focus on scalable, interpretable, reliable and customer facing methods for industrial applications of Natural Language Processing. The idea of having such a track was proposed by Yunyao Li who strongly advocated for it: this proposal was then discussed and approved by the NAACL board. After that, it was all go, with an incredible amount of work to promote and organize it by the industrial track chairs: Jennifer Chu-Carroll, Yunyao Li and Srinivas Bangalore.

The overall program looks amazing and reflects the cooperative way that everyone on the committee worked together. What a team! I am so grateful for getting to be a part of this community of people, and I really appreciate the enthusiasm and attention to detail reflected in their hard work: Amanda Stent and Heng Ji (program chairs); Jennifer Chu-Carroll, Yunyao Li and Srinivas Bangalore (industrial track chairs); Ying Lin (website chair); Marie Meteer and Jason Williams (workshop co-chairs); Mohit Bansal and Rebecca Passonneau (tutorial co-chairs); Yang Liu, Tim Paek, and Manasi Patwardhan (demo co-chairs); Chris Callison-Burch and Beth Hockey (Family-Friendly Program Co-Chairs) Stephanie Lukin and Meg Mitchell (publication co-chairs); Jonathan May (handbook chair); Silvio Ricardo Cordeiro, Shereen Oraby, Umashanthi Pavalanathan, and Kyeongmin Rim (student co-chairs) along with Swapna Somasundaran and Sam Bowman (Faculty Advisors) for the student research workshop; Lena Reed (student volunteer coordinator); Kristy Hollingshead, Kristen Johnson, and Parisa Kordjamshidi (local sponsorships and exhibits co-chairs); Yonatan Bisk and Wei Xu (publicity and social media chairs); David Yarowsky and Joel Tetreault (treasurers) and Alexis Palmer and Jason Baldridge (the NAACL international Sponsorship Team). Also thanks to Rich at SoftConf for his speedy response to questions and his willingness to help us innovate with our new review form. And thanks to Julia Hockenmaier and the whole NAACL Executive Board for always being willing to consult on any issue.

The program highlights three keynote speakers in the main track: Dilek Hakkani-Tür, Kevin Knight, and Charles Yang. We also have two keynote speakers in the industry track: Mari Ostendorf and Daniel Marcu. These talks promising to be interesting across a range of issues from language acquisition in
children to the commercial possibilities of conversational agents. The industry track will also feature two panels, one on careers in industry (as compared to academia) and the other on ethics in NLP. The program also includes six tutorials featuring topics of current interest and sources of innovation in the field. We have sixteen workshops plus the student research workshop: some of these workshops have become events in themselves with many of them repeated each year. We will also have plenary sessions for the outstanding paper awards and the new Test-Of-Time papers award session.

Any event of this scale can only happen with the the hard work of a wonderful group of people. I especially want to thank the NAACL board for being willing to consult on a range of different issues and Priscilla Rasmussen for taking care of all the millions of details that need to be looked after every single day to make sure the logistical aspects of the conference come together. I want to especially thank Priscilla for her hard work and creativity organizing our social event: we first will go to Mardi Gras World to see the world of wonders created each year for the Mardi Gras. From there we go to the river, to the dockside River City Plaza and River City Ballroom for New Orleans’ famous cuisine and libations and dancing to live Zydeco, funk, soul and R&B.

ACL has been working for several years to increase diversity at our conferences and in our community. So, taking inspiration from ACL 2017, we aimed to make NAACL family friendly, by providing childcare at the conference, and encouraging people to bring their families to the social events and breakfasts. Diversity can also be a consequence of the support for students to attend the conference that we receive from the NSF, CRA-CCC and CRA-W: this subsidizes student travel to the student research workshop as well as their registration and ACL memberships. When combined with the support we are able to give to our student volunteers, we aim to make it possible for students from all over the world to come to the conference and be part of our community. We also decided, in consultation with the NAACL board, to provide subsidies to the Widening NLP workshop, which is only being held for the second time at this year’s NAACL (last year called the Women in NLP workshop). These subsidies enable participation from students and young researchers from developing countries to attend the conference.

I am grateful to our sponsors for their generous contributions, which add so much to what we can do at the conference. Our Diamond sponsors are Bloomberg, Google, and Toutiao AI Lab (ByteDance). The Platinum sponsor is Amazon. The Gold Sponsors are Ebay, Grammarly, IBM Research, KPMG, Oracle, Poly AI, Tulane University, Capital One and Two Sigma. The Silver sponsors are Nuance and Facebook, and the Bronze sponsors are iMerit and USC/ISI.

Finally, there are many more people who through their hard work and dedication have contributed to make this conference a success: the area chairs, workshop organizers, tutorial presenters, student mentors, and reviewers. And of course you all, the attendees without whom there would be no conference: you are the life and spirit of the conference and the NAACL community. I hope you all have a fun and exciting time at NAACL HLT 2018!

NAACL HLT 2018 General Chair
*Marilyn Walker*, University of California Santa Cruz
Message from the Program Co-Chairs

We welcome you to New Orleans for the 16th Annual Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (NAACL HLT 2018)! We had three primary goals for NAACL HLT 2018: construct a great program; manage the integrity and quality of the publication process; and ensure broad participation.

Construct a great program: NAACL HLT 2018 does have a great program, thanks to all of you! We will have three exciting keynotes, from Charles Yang, Kevin Knight and Dilek Hakkani-Tür. 331 research track papers (205 long, 125 short), accepted following peer review, will be presented. Four of these papers have been identified as outstanding papers, and one will be named best paper. We will also feature a “Test of Time” session with retrospectives (from the authors) on three influential papers from ACL venues. We thank the committees who nominated and voted on these paper awards.

The main program at NAACL HLT 2018 also includes 16 TACL paper presentations, 20 demos, a student research workshop and an industry track. Keynotes from both the research and industry tracks are plenary. In a change from previous years of NAACL HLT, and motivated by EMNLP 2017, poster and oral presentation sessions will be held in parallel during the day. All posters are grouped thematically (including posters from the industry track and student research workshop and demos) and assigned to poster sessions so as to not be against oral presentation sessions with the same theme.

Manage the integrity and quality of the publication process: To manage load, we decided that each area chair should be responsible for no more than 30 submissions and that reviewers should be responsible for reviewing no more than 3 submissions. To help reviewers, we and the ACL program co-chairs constructed a more structured review form, with questions related to the new ACL guidelines on publication and reviewing, as well as to contribution types, experimental methods (thank you, Bonnie Webber!), software and handling of data.

We recruited an excellent group of 72 area chairs; we thank them for their leadership, and for nominating and voting on outstanding papers, outstanding reviewers and test of time papers. 1372 individuals reviewed papers for the conference (as program committee members, ad hoc reviewers or secondary reviewers); all but 49 reviewers had no more than 3 submissions to review overall, and the 49 reviewers who took on a heavier load did so voluntarily. We thank all our reviewers, especially the ad-hoc reviewers who provided last minute reviews and the outstanding reviewers identified by the area chairs.

Submissions were assigned to area chairs and reviewers using a combination of area chair expertise, Toronto Paper Matching System (TPMS) scores and reviewer bids. Both long and short paper submissions received 3 reviews each. Long paper authors had an opportunity to respond to reviews. Accept/reject suggestions were made by area chairs working in small groups of 2-3 and discussing with reviewers as necessary; final decisions were made by the program chairs. Where there was disagreement or discussion, one area chair wrote a short meta review that was shared with the authors.

This year, if the authors of a NAACL HLT 2018 submission and the author of a review for that submission both consented, then we will include the review in a review corpus to be released jointly with the program chairs of ACL, Iryna Gurevich and Yusuke Miyao. We also asked authors of accepted papers to upload the source code for their papers. Both of these corpora will be released in the coming months.

The health of our field as a science is dependent on a scalable peer review process, which in turn depends on (a) conscientious effort from a broad pool of expert reviewers, and (b) tools, processes and policies that can structure and facilitate reviewing. As a field we are at a breaking point: we are growing rapidly,

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1We received 1122 research track submissions (664 long, 458 short). 33 were rejected without review and 85 were withdrawn by the authors either before, during or after review. VI
with corresponding heavy load on experienced reviewers; and we lack good tools to manage the process. Peer review involves several tasks that we, as NLP researchers, ought to be uniquely qualified to address, including expertise sourcing, network analysis and text mining. We have written a proposal with other members of the ACL community about ways the ACL can improve our peer review infrastructure. We have also written a collection of “how to” documents that we will pass on to future conference organizers.

**Ensure broad participation:** To ensure broad participation, we recruited program committee members using a similar method to that used for NAACL HLT 2016: we invited anyone who had published repeatedly in ACL sponsored venues, who had a PhD or significant experience in the field spanning more than 5 years, and whose email address was up to date in START. We thank Dragomir Radev for giving us a list of names from the ACL anthology.

We also kept a blog where we discussed and attempted to “demystify” each stage of the publication process. This blog can be found at the conference website, [http://naacl2018.org](http://naacl2018.org). We are very grateful to the researchers who wrote guest blog posts, including Justine Cassell, Barbara Plank, Preslav Nakov, Omer Levy, Gemma Boleda, Emily Bender, Nitin Madnani, David Chiang, Kevin Knight, Dan Bikel and Joakim Nivre.

On our blog, we reported on the diversity of our area chair, reviewer and author pools in terms of years of experience, affiliation type and geography, and gender. We will include these details in our report to the NAACL Executive Committee. We hope that future years’ chairs will make similar reports.

The excellence of the overall NAACL HLT 2018 program is thanks to all the chairs and organizers. We especially thank the following people: Margaret Mitchell and Stephanie Lukin, the publication chairs; Jonathan May, the handbook chair; Yonatan Bisk and Wei Xu, the publicity and social media chairs; Ying Lin, the tireless website chair; and Marilyn Walker, the NAACL HLT 2018 general chair. We thank the chairs of NAACL HLT 2016 and ACL 2017 for their informative blogs, and the program chairs of NAACL HLT 2016, Owen Rambow and Ani Nenkova, for their advice. We thank the program co-chairs of ACL 2018, Iryna Gurevych and Yusuke Miyao, who have been very collaborative on matters related to reviewing. We thank Shuly Winter, who helped fix a serious START bug. We thank Julia Hockenmaier and the NAACL Executive Committee for their support. We are grateful for the professional work of Rich Gerber and his colleagues at SoftConf (START), and of Priscilla Rasmussen from the ACL.

It has been an enormous privilege for us to see the scientific advances that will be presented at this conference. We would like to close with some advice for you, the conference attendees.

- The presenters have made valuable contributions to our science; their oral, poster and demo presentations are worth your time and attention.
- Talk to some people you haven’t previously met. They may be your future collaborators!
- You can follow the conference on social media; we have a conference app and website where we will post any updates to the program, and our twitter handle is @naaclhlt.
- This event is run by a professional organization with a code of conduct[^2]. If you observe or are the recipient of unprofessional behavior, you may contact any current member of the ACL or NAACL Executive Committees, the NAACL HLT general chair (Marilyn Walker), us (the program chairs), or Priscilla Rasmussen (acl@aclweb.org). We will hold your communications in strict confidence and consult you before taking any action.

We look forward to a wonderful conference!

NAACL HLT 2018 Program Co-Chairs

*Heng Ji, RPI*

*Amanda Stent, Bloomberg*

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Marilyn Walker, University of California, Santa Cruz

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Lena Reed, University of California, Santa Cruz

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  Morteza Dehghani, University of Southern California
  Kristy Hollingshead, Institute for Human & Machine Cognition

Dialogue and Interactive Systems
  Yun-Nung (Vivian) Chen, National Taiwan University
  Gabriel Skantze, KTH Royal Institute of Technology

Discourse and Pragmatics
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  Junyi (Jessy) Li, University of Texas at Austin
  Annie Louis, University of Edinburgh
  Yi Yang, Bloomberg

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Ozan Irosoy, Bloomberg
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Machine Translation
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Kyunghyun Cho, New York University
Daniel Marcu, Amazon
Taro Watanabe, Google
Deyi Xiong, Soochow University

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Joel Tetreault, Grammarly

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Barbara Plank, University of Groningen

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Dilek Hakkani-Tur, Google
Mari Ostendorf, University of Washington

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Lu Wang, Northeastern University
Tagging, Chunking, Syntax and Parsing
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Daniel Gildea, University of Rochester
Giorgio Satta, University of Padua

Vision, Robotics and Other Grounding
Joyce Chai, Michigan State University
Vicente Ordonez, University of Virginia

Reviewers
Reviewers who are acknowledged by the program committee for providing one or more outstanding reviews are listed in bold. Individuals who (also) served as secondary reviewers are marked with † and those who (also) served as ad-hoc reviewers with *.

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Andrei Popescu-Belis
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Rebecca Portnoff
Christopher Potts

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Joyce Chai  Jennifer Foster  Joel Tetreault (Chair)
Michael Collins  Smaranda Muresan

Test-of-Time Paper Expert Award Committee

Marilyn Walker (Chair)  Iryna Gurevych  Amanda Stent
Antal van den Bosch  Katrin Kirchhoff  Michael Strube
Chris Callison-Burch  Yuji Matsumoto  Lucy Vanderwende
Claire Cardie  Yusuke Miyao  Hua Wu
Joyce Chai  Alessandro Moschitti  Chengqing Zong
Walter Daelemans  Massimo Poesio
Katrin Erk  Owen Rambow
Pascale Fung  Anoop Sarkar

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<th>Student Volunteers</th>
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</thead>
<tbody>
<tr>
<td>Akhtar Shad</td>
</tr>
<tr>
<td>Amorim Evelin</td>
</tr>
<tr>
<td>Amplayo Reinald Kim</td>
</tr>
<tr>
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Outstanding Papers

For NAACL HLT 2018 we recognize four outstanding research track papers (one of these will be named best paper). These four papers were selected by a committee composed of Joyce Chai (Michigan State University), Michael Collins (Columbia University), Jennifer Foster (Dublin City University), Smaranda Muresan (Columbia University) and Joel Tetreault (Grammarly; chair), all NAACL HLT 2018 area chairs with no conflicts with the candidate outstanding papers. The nine candidate papers were selected by the program chairs from nineteen papers nominated by the area chairs. These papers will be presented in a plenary session on the last day of the conference. Congratulations to the authors!

- Learning to Map Context-Dependent Sentences to Executable Formal Queries, by Alane Suhr, Srinivasan Iyer and Yoav Artzi
- Neural Text Generation in Stories using Entity Representations as Context, by Elizabeth Clark, Yangfeng Ji and Noah A. Smith
- Recurrent Neural Networks as Weighted Language Recognizers, by Yining Chen, Sorcha Gilroy, Andreas Maletti, Jonathan May and Kevin Knight

Test of Time Papers

For NAACL HLT 2018 we recognize three influential and inspiring Computational Linguistics (CL) papers which were published between 2002-2012 at the Association for Computational Linguistics (ACL) conferences (including ACL, NAACL, EACL, EMNLP and CONLL), workshops and journals (including TACL and CL), to recognize research that has had long-lasting influence until today, including positive impact on a subarea of CL, across subareas of CL, and outside of the CL research community. These papers may have proposed new research directions and new technologies, or released results and resources that have greatly benefit the community. Nineteen candidate test of time papers were nominated by our area chairs. Separate votes on these papers were held separately by two committees: an expert award committee consisting of all ACL and NAACL general chairs and program chairs and NAACL board members from 2013-2018 who did not have a conflict with the nominated papers, and a community award committee consisting of the 1000 authors who have published the most papers at ACL venues and who did not have a conflict with the nominated papers. These papers will be re-presented by the authors in a plenary session on the second day of the conference. Congratulations to the authors!

- Thumbs up?: Sentiment Classification using Machine Learning Techniques, by Bo Pang, Lillian Lee and Shivakumar Vaithyanathan
Keynote Talk: Why 72?
Charles Yang
University of Pennsylvania

Biography
Charles Yang is a Professor of Linguistics, Computer Science, and Psychology at the University of Pennsylvania and directs the Program in Cognitive Science. He has spent a long time working out the tricks children use to learn languages and is now ready to try them out on machines. His most recent book, The Price of Linguistic Productivity, is the winner of the 2017 LSA Leonard Bloomfield award.

Keynote Talk: The Moment When the Future Fell Asleep
Kevin Knight
University of Southern California / Information Sciences Institute

Biography
Kevin Knight is a professor of computer science at the University of Southern California and fellow of the Information Sciences Institute. He is a 2014 fellow of the ACL for foundational contributions to machine translation, to the application of automata for NLP, to decipherment of historical manuscripts, to semantics and to generation.

Keynote Talk: Google Assistant or My Assistant? Towards Personalized Situated Conversational Agents
Dilek Hakkani-Tür
Google Research

Abstract
Interacting with machines in natural language has been a holy grail since the beginning of computers. Given the difficulty of understanding natural language, only in the past couple of decades, we started seeing real user applications for targeted/limited domains. More recently, advances in deep learning based approaches enabled exciting new research frontiers for end-to-end goal-oriented conversational systems. However, personalization (i.e., learning to take actions from users and learning about users beyond memorizing simple attributes) remains a research challenge. In this talk, I’ll review end-to-end situated dialogue systems research, with components for situated language understanding, dialogue state tracking, policy, and language generation. The talk will highlight novel approaches where dialogue is viewed as a collaborative game between a user and an agent in the presence of visual information. The situated conversational agent can be bootstrapped using user simulation (crawl), improved through interactions with crowd-workers (walk), and iteratively refined with real user interactions (run).

Biography
Dilek Hakkani-Tür is a research scientist at Google Research Dialogue Group and has previously held positions at Microsoft Research, ICSI, and AT&T Labs – Research. She is a fellow of the IEEE and of ISCA. Her research interests include conversational AI, natural language and speech processing, spoken dialogue systems, and machine learning for language processing.
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June 2

07:30–08:45  Breakfast

08:45–09:00  Welcome from the Chairs

09:00–10:00  Keynote (sponsored by Toutiao AI Lab)

  Why 72?
  Charles Yang, University of Pennsylvania

10:00–10:30  Morning Coffee

10:30–11:30  Information Extraction 1

10:30–11:30  Phonology, Morphology and Word Segmentation 1

10:30–11:30  Speech 1

10:30–12:00  Discourse and Pragmatics 1

  Enhanced Word Representations for Bridging Anaphora Resolution
  Yufang Hou

  Gender Bias in Coreference Resolution
  Rachel Rudinger, Jason Naradowsky, Brian Leonard and Benjamin Van Durme

  Gender Bias in Coreference Resolution: Evaluation and Debiasing Methods
  Jieyu Zhao, Tianlu Wang, Mark Yatskar, Vicente Ordonez and Kai-Wei Chang

  Integrating Stance Detection and Fact Checking in a Unified Corpus
  Ramy Baly, Mitra Mohtarami, James Glass, Lluís Márquez, Alessandro Moschitti and Preslav Nakov
June 2 (continued)

Is Something Better than Nothing? Automatically Predicting Stance-based Arguments Using Deep Learning and Small Labelled Dataset
Pavithra Rajendran, Danushka Bollegala and Simon Parsons

Multi-Task Learning for Argumentation Mining in Low-Resource Settings
Claudia Schulz, Steffen Eger, Johannes Daxenberger, Tobias Kahse and Iryna Gurevych

Neural Models for Reasoning over Multiple Mentions Using Coreference
Bhuwan Dhingra, Qiao Jin, Zhilin Yang, William Cohen and Ruslan Salakhutdinov

10:30–12:00 Generation 1

Automatic Dialogue Generation with Expressed Emotions
Chenyang Huang, Osmar Zaiane, Amine Trabelsi and Nouha Dziri

Guiding Generation for Abstractive Text Summarization Based on Key Information Guide Network
Chenliang Li, Weiran Xu, Si Li and Sheng Gao

Natural Language Generation by Hierarchical Decoding with Linguistic Patterns
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Neural Poetry Translation
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RankME: Reliable Human Ratings for Natural Language Generation
Jekaterina Novikova, Ondřej Dušek and Verena Rieser

Sentence Simplification with Memory-Augmented Neural Networks
Tu Vu, Baotian Hu, Tsendasuren Munkhdalai and Hong Yu
10:30–12:00  NLP Applications 1

*A Corpus of Non-Native Written English Annotated for Metaphor*
Beata Beigman Klebanov, Chee Wee (Ben) Leong and Michael Flor

*A Simple and Effective Approach to the Story Cloze Test*
Siddarth Srinivasan, Richa Arora and Mark Riedl

*An Annotated Corpus for Machine Reading of Instructions in Wet Lab Protocols*
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*Annotation Artifacts in Natural Language Inference Data*
Suchin Gururangan, Swabha Swayamdipta, Omer Levy, Roy Schwartz, Samuel Bowman and Noah A. Smith

*Humor Recognition Using Deep Learning*
Peng-Yu Chen and Von-Wun Soo

*Leveraging Intra-User and Inter-User Representation Learning for Automated Hate Speech Detection*
Jing Qian, Mai ElSherief, Elizabeth Belding and William Yang Wang

*Reference-less Measure of Faithfulness for Grammatical Error Correction*
Leshem Choshen and Omri Abend
June 2 (continued)

11:30–12:30  Machine Learning 1

11:30–12:30  Information Extraction 2

11:30–12:30  Machine Translation 1

12:30–14:00  Lunch

14:00–15:00  Industry Track Keynote

15:00–15:30  Afternoon Coffee

15:30–17:00  Machine Learning 2

15:48–16:06  *Training Structured Prediction Energy Networks with Indirect Supervision*
  Amirmohammad Rooshenas, Aishwarya Kamath and Andrew McCallum

15:30–17:00  Social Media and Computational Social Science 1

16:06–16:24  *Si O No, Que Penses? Catalan Independence and Linguistic Identity on Social Media*
  Ian Stewart, Yuval Pinter and Jacob Eisenstein
June 2 (continued)

15:30–17:00 Vision, Robotics and Other Grounding 1

15:30–17:00 Semantics 1

A Transition-Based Algorithm for Unrestricted AMR Parsing
David Vilares and Carlos Gómez-Rodríguez

Analogies in Complex Verb Meaning Shifts: the Effect of Affect in Semantic Similarity Models
Maximilian Köper and Sabine Schulte im Walde

Character-Based Neural Networks for Sentence Pair Modeling
Wuwei Lan and Wei Xu

Determining Event Durations: Models and Error Analysis
Alakananda Vempala, Eduardo Blanco and Alexis Palmer

Diachronic Usage Relatedness (DURel): A Framework for the Annotation of Lexical Semantic Change
Dominik Schlechtweg, Sabine Schulte im Walde and Stefanie Eckmann

Directional Skip-Gram: Explicitly Distinguishing Left and Right Context for Word Embeddings
Yan Song, Shuming Shi, Jing Li and Haisong Zhang

Discriminating between Lexico-Semantic Relations with the Specialization Tensor Model
Goran Glavaš and Ivan Vulić

Evaluating bilingual word embeddings on the long tail
Fabienne Braune, Viktor Hangya, Tobias Eder and Alexander Fraser

Frustratingly Easy Meta-Embedding – Computing Meta-Embeddings by Averaging Source Word Embeddings
Joshua Coates and Danushka Bollegala

Introducing Two Vietnamese Datasets for Evaluating Semantic Models of (Dis-)Similarity and Relatedness
Kim Anh Nguyen, Sabine Schulte im Walde and Ngoc Thang Vu
June 2 (continued)

*Lexical Substitution for Evaluating Compositional Distributional Models*
Maja Buljan, Sebastian Padó and Jan Šnajder

*Mittens: an Extension of GloVe for Learning Domain-Specialized Representations*
Nicholas Dingwall and Christopher Potts

*Olive Oil is Made of Olives, Baby Oil is Made for Babies: Interpreting Noun Compounds Using Paraphrases in a Neural Model*
Vered Shwartz and Chris Waterson

*Semantic Pleonasm Detection*
Omid Kashefi, Andrew T. Lucas and Rebecca Hwa

*Similarity Measures for the Detection of Clinical Conditions with Verbal Fluency Tasks*
Felipe Paula, Rodrigo Wilkens, Marco Idiart and Aline Villavicencio

*Sluice Resolution without Hand-Crafted Features over Brittle Syntax Trees*
Ola Rønning, Daniel Hardt and Anders Søgaard

*The Word Analogy Testing Caveat*
Natalie Schluter

*Transition-Based Chinese AMR Parsing*
Chuan Wang, Bin Li and Nianwen Xue
June 2 (continued)

15:30–17:00  Sentiment Analysis 1

Knowledge-Enriched Two-Layered Attention Network for Sentiment Analysis
Abhishek Kumar, Daisuke Kawahara and Sadao Kurohashi

Letting Emotions Flow: Success Prediction by Modeling the Flow of Emotions in Books
Suraj Maharjan, Sudipta Kar, Manuel Montes, Fabio A. Gonzalez and Thamar Solorio

Modeling Inter-Aspect Dependencies for Aspect-Based Sentiment Analysis
Devamanyu Hazarika, Soujanya Poria, Prateek Vij, Gangeshwar Krishnamurthy, Erik Cambria and Roger Zimmermann

Multi-Task Learning Framework for Mining Crowd Intelligence towards Clinical Treatment
Shweta Yadav, Asif Ekbal, Sriparna Saha, Pushpak Bhattacharyya and Amit Sheth

Recurrent Entity Networks with Delayed Memory Update for Targeted Aspect-Based Sentiment Analysis
Fei Liu, Trevor Cohn and Timothy Baldwin

17:00–18:30  NLP Applications 2

18:12–18:30  Near Human-Level Performance in Grammatical Error Correction with Hybrid Machine Translation
Roman Grundkiewicz and Marcin Junczys-Dowmunt
June 2 (continued)

17:00–18:30  Question Answering 1

17:54–18:12  Strong Baselines for Simple Question Answering over Knowledge Graphs with and without Neural Networks
Salman Mohammed, Peng Shi and Jimmy Lin

17:00–18:30  SRW Highlights

June 3

07:45–08:45  Breakfast

08:45–09:00  Announcements

09:00–10:00  Keynote 2 (sponsored by Google)

The Moment When the Future Fell Asleep
Kevin Knight, University of Southern California / Information Sciences Institute

10:00–10:30  Morning Coffee

10:30–11:30  Cognitive Modeling and Psycholinguistics 1

11:06–11:24  Looking for Structure in Lexical and Acoustic-Prosodic Entrainment Behaviors
Andreas Weise and Rivka Levitan
June 3 (continued)

10:30–11:30  Summarization 1

10:30–11:30  Semantics 2

10:48–11:06  Modeling Semantic Plausibility by Injecting World Knowledge
Su Wang, Greg Durrett and Katrin Erk

10:30–12:00  Information Extraction 3

A Bi-Model Based RNN Semantic Frame Parsing Model for Intent Detection and Slot Filling
Yu Wang, Yilin Shen and Hongxia Jin

A Comparison of Two Paraphrase Models for Taxonomy Augmentation
Vassilis Plachouras, Fabio Petroni, Timothy Nugent and Jochen L. Leidner

A Laypeople Study on Terminology Identification across Domains and Task Definitions
Anna Hätty and Sabine Schulte im Walde

A Novel Embedding Model for Knowledge Base Completion Based on Convolutional Neural Network
Dat Quoc Nguyen, Tu Dinh Nguyen, Dat Quoc Nguyen and Dinh Phung

Cross-language Article Linking Using Cross-Encyclopedia Entity Embedding
Chun-Kai Wu and Richard Tzong-Han Tsai

Identifying the Most Dominant Event in a News Article by Mining Event Coreference Relations
Prafulla Kumar Choubey, Kaushik Raju and Ruithong Huang

Improve Neural Entity Recognition via Multi-Task Data Selection and Constrained Decoding
Huasha Zhao, Yi Yang, Qiong Zhang and Luo Si

Keep Your Bearings: Lightly-Supervised Information Extraction with Ladder Networks That Avoids Semantic Drift
Ajay Nagesh and Mihai Surdeanu
June 3 (continued)

Semi-Supervised Event Extraction with Paraphrase Clusters
James Ferguson, Colin Lockard, Daniel Weld and Hannaneh Hajishirzi

Structure Regularized Neural Network for Entity Relation Classification for Chinese Literature Text
Ji Wen, Xu Sun, Xuancheng Ren and Qi Su

Syntactic Patterns Improve Information Extraction for Medical Search
Roma Patel, Yinfei Yang, Iain Marshall, Ani Nenkova and Byron Wallace

Syntactically Aware Neural Architectures for Definition Extraction
Luis Espinosa Anke and Steven Schockaert

10:30–12:00 Tagging, Chunking, Syntax and Parsing 1

A Dynamic Oracle for Linear-Time 2-Planar Dependency Parsing
Daniel Fernández-González and Carlos Gómez-Rodríguez

Are Automatic Methods for Cognate Detection Good Enough for Phylogenetic Reconstruction in Historical Linguistics?
Taraka Rama, Johann-Mattis List, Johannes Wahle and Gerhard Jäger

Automatically Selecting the Best Dependency Annotation Design with Dynamic Oracles
Guillaume Wisniewski, Ophélie Lacroix and François Yvon

Consistent CCG Parsing over Multiple Sentences for Improved Logical Reasoning
Masashi Yoshikawa, Koji Mineshima, Hiroshi Noji and Daisuke Bekki

Exploiting Dynamic Oracles to Train Projective Dependency Parsers on Non-Projective Trees
Lauriane Aufrant, Guillaume Wisniewski and François Yvon

Improving Coverage and Runtime Complexity for Exact Inference in Non-Projective Transition-Based Dependency Parsers
Tianze Shi, Carlos Gómez-Rodríguez and Lillian Lee

Towards a Variability Measure for Multiword Expressions
Caroline Pasquer, Agata Savary, Jean-Yves Antoine and Carlos Ramisch
June 3 (continued)

11:30–12:30  Machine Learning 3

11:30–12:30  Social Media and Computational Social Science 2

11:30–12:30  Vision, Robotics and Other Grounding 2

11:30–11:48  Defoiling Foiled Image Captions
Pranava Swaroop Madhyastha, Josiah Wang and Lucia Specia

11:48–12:06  Pragmatically Informative Image Captioning with Character-Level Inference
Reuben Cohn-Gordon, Noah Goodman and Christopher Potts

12:06–12:24  Object Ordering with Bidirectional Matchings for Visual Reasoning
Hao Tan and Mohit Bansal

12:30–14:00  Lunch

14:00–15:00  Industry Track Keynote

15:00–15:30  Afternoon Coffee
June 3 (continued)

15:30–17:00  Text Mining 1

15:30–17:00  Semantics 3

15:30–17:00  Tagging, Chunking, Syntax and Parsing 2

15:30–17:00  Machine Learning 4

Contextual Augmentation: Data Augmentation by Words with Paradigmatic Relations
Sosuke Kobayashi

Cross-Lingual Learning-to-Rank with Shared Representations
Shota Sasaki, Shuo Sun, Shigehiko Schamoni, Kevin Duh and Kentaro Inui

Self-Attention with Relative Position Representations
Peter Shaw, Jakob Uszkoreit and Ashish Vaswani

Text Segmentation as a Supervised Learning Task
Omri Koshorek, Adir Cohen, Noam Mor, Michael Rotman and Jonathan Berant

What’s in a Domain? Learning Domain-Robust Text Representations using Adversarial Training
Yitong Li, Timothy Baldwin and Trevor Cohn
June 3 (continued)

15:30–17:00 Machine Translation 2

Automated Paraphrase Lattice Creation for HyTER Machine Translation Evaluation
Marianna Apidianaki, Guillaume Wisniewski, Anne Cocos and Chris Callison-Burch

Exploiting Semantics in Neural Machine Translation with Graph Convolutional Networks
Diego Marcheggiani, Joost Bastings and Ivan Titov

Incremental Decoding and Training Methods for Simultaneous Translation in Neural Machine Translation
Fahim Dalvi, Nadir Durrani, Hassan Sajjad and Stephan Vogel

Learning Hidden Unit Contribution for Adapting Neural Machine Translation Models
David Vilar

Neural Machine Translation Decoding with Terminology Constraints
Eva Hasler, Adrià de Gispert, Gonzalo Iglesias and Bill Byrne

On the Evaluation of Semantic Phenomena in Neural Machine Translation Using Natural Language Inference
Adam Poliak, Yonatan Belinkov, James Glass and Benjamin Van Durme

Using Word Vectors to Improve Word Alignments for Low Resource Machine Translation
Nima Pourdamghani, Marjan Ghazvininejad and Kevin Knight

When and Why Are Pre-Trained Word Embeddings Useful for Neural Machine Translation?
Ye Qi, Devendra Sachan, Matthieu Felix, Sarguna Padmanabhan and Graham Neubig
June 3 (continued)

15:30–17:00  Phphonology, Morphology and Word Segmentation 2

*Are All Languages Equally Hard to Language-Model?*
Ryan Cotterell, Sebastian J. Mielke, Jason Eisner and Brian Roark

*The Computational Complexity of Distinctive Feature Minimization in Phonology*
Hubie Chen and Mans Hulden

*Unsupervised Disambiguation of Syncretism in Inflected Lexicons*
Ryan Cotterell, Christo Kirov, Sebastian J. Mielke and Jason Eisner

17:00–18:30  Test of Time Session (in honor of Aravind Joshi)

17:00–17:15  Awards and Remembrances

17:15–17:40  *BLEU: a Method for Automatic Evaluation of Machine Translation (Test of Time)*
Kishore Papineni, Salim Roukos, Todd Ward and Wei-Jing Zhu, IBM Research

Michael Collins, Columbia University

18:05–18:30  *Thumbs up?: Sentiment Classification using Machine Learning Techniques (Test of Time)*
Bo Pang, Lillian Lee, Shivakumar Vaithyanathan, Cornell University, IBM Research
June 4

07:45–08:45  Breakfast

08:45–09:00  Announcements

09:00–10:00  Keynote 3 (sponsored by Bloomberg)

  Google Assistant or My Assistant? Towards Personalized Situated Conversational Agents
  Dilek Hakkani-Tür

10:00–10:30  Morning Coffee

10:30–11:30  Information Extraction 4

10:30–11:30  Semantics 4

10:30–11:30  Generation 2

10:30–12:00  Question Answering 2

  Contextualized Word Representations for Reading Comprehension
  Shimi Salant and Jonathan Berant

  Crowdsourcing Question-Answer Meaning Representations
  Julian Michael, Gabriel Stanovsky, Luheng He, Ido Dagan and Luke Zettlemoyer

  Leveraging Context Information for Natural Question Generation
  Linfeng Song, Zhiguo Wang, Wael Hamza, Yue Zhang and Daniel Gildea

  Robust Machine Comprehension Models via Adversarial Training
  Yicheng Wang and Mohit Bansal
June 4 (continued)

*Simple and Effective Semi-Supervised Question Answering*
Bhuwan Dhingra, Danish Danish and Dheeraj Rajagopal

*TypeSQL: Knowledge-Based Type-Aware Neural Text-to-SQL Generation*
Tao Yu, Zifan Li, Zilin Zhang, Rui Zhang and Dragomir Radev

10:30–12:00 Social Media and Computational Social Science 3

*Community Member Retrieval on Social Media Using Textual Information*
Aaron Jaech, Shobhit Hathi and Mari Ostendorf

*Cross-Domain Review Helpfulness Prediction Based on Convolutional Neural Networks with Auxiliary Domain Discriminators*
Cen Chen, Yinfei Yang, Jun Zhou, Xiaolong Li and Forrest Sheng Bao

*Predicting Foreign Language Usage from English-Only Social Media Posts*
Svitlana Volkova, Stephen Ranshous and Lawrence Phillips

10:30–12:00 Summarization 2

*A Discourse-Aware Attention Model for Abstractive Summarization of Long Documents*
Arman Cohan, Franck Dernoncourt, Doo Soon Kim, Trung Bui, Seokhwan Kim, Walter Chang and Nazli Goharian

*A Mixed Hierarchical Attention Based Encoder-Decoder Approach for Standard Table Summarization*
Parag Jain, Anirban Laha, Karthik Sankaranarayanan, Preksha Nema, Mitesh M. Khapra and Shreyas Shetty

*Effective Crowdsourcing for a New Type of Summarization Task*
Youxuan Jiang, Catherine Finegan-Dollak, Jonathan K. Kummerfeld and Walter Lasecki

*Key2Vec: Automatic Ranked Keyphrase Extraction from Scientific Articles using Phrase Embeddings*
Debanjan Mahata, John Kuriakose, Rajiv Ratn Shah and Roger Zimmermann

*Learning to Generate Wikipedia Summaries for Underserved Languages from Wiki data*
Lucie-Aimée Kaffee, Hady Elsahar, Pavlos Vougiouklis, Christophe Gravier, Frédérique Laforest, Jonathon Hare and Elena Simperl
June 4 (continued)

*Multi-Reward Reinforced Summarization with Saliency and Entailment*
Ramakanth Pasunuru and Mohit Bansal

*Objective Function Learning to Match Human Judgements for Optimization-Based Summarization*
Maxime Peyrard and Iryna Gurevych

*Pruning Basic Elements for Better Automatic Evaluation of Summaries*
Ukyo Honda, Tsutomu Hirao and Masaaki Nagata

*Unsupervised Keyphrase Extraction with Multipartite Graphs*
Florian Boudin

*Where Have I Heard This Story Before? Identifying Narrative Similarity in Movie Remakes*
Snigdha Chaturvedi, Shashank Srivastava and Dan Roth

11:30–12:30  Dialogue and Interactive Systems 1

11:30–12:30  Information Extraction 5

11:30–12:30  Generation 3

12:30–14:00  Lunch

13:00–14:00  *NAACL Business Meeting*
Julia Hockenmaier, University of Illinois at Urbana-Champaign
June 4 (continued)

14:00–15:30  Sentiment Analysis 2

15:12–15:30  Multimodal Emoji Prediction
Francesco Barbieri, Miguel Ballesteros, Francesco Ronzano and Horacio Saggion

14:00–15:30  Discourse and Pragmatics 2

15:12–15:30  Higher-Order Coreference Resolution with Coarse-to-Fine Inference
Kenton Lee, Luheng He and Luke Zettlemoyer

14:00–15:30  Tagging, Chunking, Syntax and Parsing 3

14:54–15:12  Non-Projective Dependency Parsing with Non-Local Transitions
Daniel Fernández-González and Carlos Gómez-Rodríguez

14:00–15:30  Cognitive Modeling and Psycholinguistics 2

Detecting Linguistic Characteristics of Alzheimer’s Dementia by Interpreting Neural Models
Sweta Karlekar, Tong Niu and Mohit Bansal

14:00–15:30  Dialogue and Interactive Systems 2

Deep Dungeons and Dragons: Learning Character-Action Interactions from Role-Playing Game Transcripts
Annie Louis and Charles Sutton

Feudal Reinforcement Learning for Dialogue Management in Large Domains
Iñigo Casanueva, Paweł Budzianowski, Pei-Hao Su, Stefan Ultes, Lina M. Rojas Barahona, Bo-Hsiang Tseng and Milica Gasic
June 4 (continued)

14:00–15:30 Text Mining 2

_Evaluating Historical Text Normalization Systems: How Well Do They Generalize?_
Alexander Robertson and Sharon Goldwater

**Gated Multi-Task Network for Text Classification**
Liqiang Xiao, Honglun Zhang and Wenqing Chen

_Natural Language to Structured Query Generation via Meta-Learning_
Po-Sen Huang, Chenglong Wang, Rishabh Singh, Wen-tau Yih and Xiaodong He

**Smaller Text Classifiers with Discriminative Cluster Embeddings**
Mingda Chen and Kevin Gimpel

14:00–15:30 Speech 2

_Role-specific Language Models for Processing Recorded Neuropsychological Exams_
Tuka Al Hanai, Rhoda Au and James Glass

_Slot-Gated Modeling for Joint Slot Filling and Intent Prediction_
Chih-Wen Goo, Guang Gao, Yun-Kai Hsu, Chih-Li Huo, Tsung-Chieh Chen, Keng-Wei Hsu and Yun-Nung Chen
June 4 (continued)

14:00–15:30  Vision, Robotics and Other Grounding 3

*An Evaluation of Image-Based Verb Prediction Models against Human Eye-Tracking Data*
Spandana Gella and Frank Keller

*Learning to Color from Language*
Varun Manjunatha, Mohit Iyyer, Jordan Boyd-Graber and Larry Davis

*Punny Captions: Witty Wordplay in Image Descriptions*
Arjun Chandrasekaran, Devi Parikh and Mohit Bansal

*The Emergence of Semantics in Neural Network Representations of Visual Information*
Dhanush Dharmaretnam and Alona Fyshe

Volkan Cirik, Louis-Philippe Morency and Taylor Berg-Kirkpatrick

*Visually Guided Spatial Relation Extraction from Text*
Taher Rahgooy, Umar Manzoor and Parisa Kordjamshidi

*Watch, Listen, and Describe: Globally and Locally Aligned Cross-Modal Attentions for Video Captioning*
Xin Wang, Yuan-Fang Wang and William Yang Wang
June 4 (continued)

15:30–16:00  Afternoon Coffee

17:00–18:15  Outstanding Paper Session (sponsored by Amazon)