NAACL HLT 2018

The 2018 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies

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Message from the General Chair

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 cochairs) 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 cochairs); 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[1]. 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 Gureyvich 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,

[1]We 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.

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`. 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

[2] `https://www.aclweb.org/adminwiki/index.php?title=Anti-Harassment_Policy`

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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!

- *Deep Contextualized Word Representations*, by Matthew Peters, Mark Neumann, Mohit Iyyer, Matt Gardner, Christopher Clark, Kenton Lee and Luke Zettlemoyer
- *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!

- *BLEU: a Method for Automatic Evaluation of Machine Translation*, by Kishore Papineni, Salim Roukos, Todd Ward and Wei-Jing Zhu
- *Discriminative Training Methods for Hidden Markov Models: Theory and Experiments with Perceptron Algorithms*, by Michael Collins
- *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 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 to work 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 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 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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Matthew Peters, Mark Neumann, Mohit Iyyer, Matt Gardner, Christopher Clark, Kenton Lee and Luke Zettlemoyer 2227

Learning to Map Context-Dependent Sentences to Executable Formal Queries
Alane Suhr, Srinivasan Iyer and Yoav Artzi 2238

Neural Text Generation in Stories Using Entity Representations as Context
Elizabeth Clark, Yangfeng Ji and Noah A. Smith 2250

Recurrent Neural Networks as Weighted Language Recognizers
Yining Chen, Sorcha Gilroy, Andreas Maletti, Jonathan May and Kevin Knight 2261

Conference Program

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

10:30–10:48 *Label-Aware Double Transfer Learning for Cross-Specialty Medical Named Entity Recognition*
Zhenghui Wang, Yanru Qu, Liheng Chen, Jian Shen, Weinan Zhang, Shaodian Zhang, Yimei Gao, Gen Gu, Ken Chen and Yong Yu

10:48–11:06 *Neural Fine-Grained Entity Type Classification with Hierarchy-Aware Loss*
Peng Xu and Denilson Barbosa

11:06–11:24 *Joint Bootstrapping Machines for High Confidence Relation Extraction*
Pankaj Gupta, Benjamin Roth and Hinrich Schütze

June 2 (continued)

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

10:30–10:48 *A Deep Generative Model of Vowel Formant Typology*
Ryan Cotterell and Jason Eisner

10:48–11:06 *Fortification of Neural Morphological Segmentation Models for Polysynthetic Minimal-Resource Languages*
Katharina Kann, Jesus Manuel Mager Hois, Ivan Vladimir Meza Ruiz and Hinrich Schütze

11:06–11:24 *Improving Character-Based Decoding Using Target-Side Morphological Information for Neural Machine Translation*
Peyman Passban, Qun Liu and Andy Way

10:30–11:30 Speech 1

10:30–10:48 *Parsing Speech: a Neural Approach to Integrating Lexical and Acoustic-Prosodic Information*
Trang Tran, Shubham Toshniwal, Mohit Bansal, Kevin Gimpel, Karen Livescu and Mari Ostendorf

10:48–11:06 *Tied Multitask Learning for Neural Speech Translation*
Antonios Anastasopoulos and David Chiang

11:06–11:24 *Please Clap: Modeling Applause in Campaign Speeches*
Jon Gillick and David Bamman

June 2 (continued)

10:30–12:00 Discourse and Pragmatics 1

Attentive Interaction Model: Modeling Changes in View in Argumentation
Yohan Jo, Shivani Poddar, Byungsoo Jeon, Qinlan Shen, Carolyn Rose and Graham Neubig

Automatic Focus Annotation: Bringing Formal Pragmatics Alive in Analyzing the Information Structure of Authentic Data
Ramon Ziai and Detmar Meurers

Dear Sir or Madam, May I Introduce the GYAFC Dataset: Corpus, Benchmarks and Metrics for Formality Style Transfer
Sudha Rao and Joel Tetreault

Improving Implicit Discourse Relation Classification by Modeling Inter-dependencies of Discourse Units in a Paragraph
Zeyu Dai and Ruihong Huang

10:30–12:00 Generation 1

A Deep Ensemble Model with Slot Alignment for Sequence-to-Sequence Natural Language Generation
Juraj Juraska, Panagiotis Karagiannis, Kevin Bowden and Marilyn Walker

A Melody-Conditioned Lyrics Language Model
Kento Watanabe, Yuichiroh Matsubayashi, Satoru Fukayama, Masataka Goto, Kentaro Inui and Tomoyasu Nakano

Discourse-Aware Neural Rewards for Coherent Text Generation
Antoine Bosselut, Asli Celikyilmaz, Xiaodong He, Jianfeng Gao, Po-Sen Huang and Yejin Choi

Natural Answer Generation with Heterogeneous Memory
Yao Fu and Yansong Feng

Query and Output: Generating Words by Querying Distributed Word Representations for Paraphrase Generation
Shuming Ma, Xu Sun, Wei Li, Sujian Li, Wenjie Li and Xuancheng Ren

Simplification Using Paraphrases and Context-Based Lexical Substitution
Reno Kriz, Eleni Miltsakaki, Marianna Apidianaki and Chris Callison-Burch

June 2 (continued)

Zero-Shot Question Generation from Knowledge Graphs for Unseen Predicates and Entity Types
Hady Elsahar, Christophe Gravier and Frederique Laforest

10:30–12:00 NLP Applications 1

Automated Essay Scoring in the Presence of Biased Ratings
Evelin Amorim, Marcia Cançado and Adriano Veloso

Content-Based Citation Recommendation
Chandra Bhagavatula, Sergey Feldman, Russell Power and Waleed Ammar

Looking Beyond the Surface: A Challenge Set for Reading Comprehension over Multiple Sentences
Daniel Khashabi, Snigdha Chaturvedi, Michael Roth, Shyam Upadhyay and Dan Roth

Neural Automated Essay Scoring and Coherence Modeling for Adversarially Crafted Input
Youmna Farag, Helen Yannakoudakis and Ted Briscoe

QuickEdit: Editing Text & Translations by Crossing Words Out
David Grangier and Michael Auli

Tempo-Lexical Context Driven Word Embedding for Cross-Session Search Task Extraction
Procheta Sen, Debasis Ganguly and Gareth Jones

June 2 (continued)

11:30–12:30 Machine Learning 1

11:30–11:48 *Zero-Shot Sequence Labeling: Transferring Knowledge from Sentences to Tokens*
Marek Rei and Anders Søgaard

11:48–12:06 *Variable Typing: Assigning Meaning to Variables in Mathematical Text*
Yiannos Stathopoulos, Simon Baker, Marek Rei and Simone Teufel

11:30–12:30 Information Extraction 2

11:30–11:48 *Learning beyond Datasets: Knowledge Graph Augmented Neural Networks for Natural Language Processing*
Annervaz K M, Somnath Basu Roy Chowdhury and Ambedkar Dukkipati

11:48–12:06 *Comparing Constraints for Taxonomic Organization*
Anne Cocos, Marianna Apidianaki and Chris Callison-Burch

11:30–12:30 Machine Translation 1

11:30–11:48 *Improving Lexical Choice in Neural Machine Translation*
Toan Nguyen and David Chiang

11:48–12:06 *Universal Neural Machine Translation for Extremely Low Resource Languages*
Jiatao Gu, Hany Hassan, Jacob Devlin and Victor O.K. Li

12:06–12:24 *Classical Structured Prediction Losses for Sequence to Sequence Learning*
Sergey Edunov, Myle Ott, Michael Auli, David Grangier and Marc'Aurelio Ranzato

June 2 (continued)

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

15:30–15:48 *Deep Dirichlet Multinomial Regression*
Adrian Benton and Mark Dredze

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

15:30–15:48 *Microblog Conversation Recommendation via Joint Modeling of Topics and Discourse*
Xingshan Zeng, Jing Li, Lu Wang, Nicholas Beauchamp, Sarah Shugars and Kam-Fai Wong

15:48–16:06 *Before Name-Calling: Dynamics and Triggers of Ad Hominem Fallacies in Web Argumentation*
Ivan Habernal, Henning Wachsmuth, Iryna Gurevych and Benno Stein

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

15:30–15:48 *Scene Graph Parsing as Dependency Parsing*
Yu-Siang Wang, Chenxi Liu, Xiaohui Zeng and Alan Yuille

15:48–16:06 *Learning Visually Grounded Sentence Representations*
Douwe Kiela, Alexis Conneau, Allan Jabri and Maximilian Nickel

16:06–16:24 *Comparatives, Quantifiers, Proportions: a Multi-Task Model for the Learning of Quantities from Vision*
Sandro Pezzelle, Ionut-Teodor Sorodoc and Raffaella Bernardi

16:24–16:42 *Being Negative but Constructively: Lessons Learnt from Creating Better Visual Question Answering Datasets*
Wei-Lun Chao, Hexiang Hu and Fei Sha

June 2 (continued)

15:30–17:00 Semantics 1

Abstract Meaning Representation for Paraphrase Detection
Fuad Issa, Marco Damonte, Shay B. Cohen, Xiaohui Yan and Yi Chang

attr2vec: Jointly Learning Word and Contextual Attribute Embeddings with Factorization Machines
Fabio Petroni, Vassilis Plachouras, Timothy Nugent and Jochen L. Leidner

Can Network Embedding of Distributional Thesaurus Be Combined with Word Vectors for Better Representation?
Abhik Jana and Pawan Goyal

Deep Neural Models of Semantic Shift
Alex Rosenfeld and Katrin Erk

Distributional Inclusion Vector Embedding for Unsupervised Hypernymy Detection
Haw-Shiuan Chang, Ziyun Wang, Luke Vilnis and Andrew McCallum

Mining Possessions: Existence, Type and Temporal Anchors
Dhivya Chinnappa and Eduardo Blanco

Neural Tensor Networks with Diagonal Slice Matrices
Takahiro Ishihara, Katsuhiko Hayashi, Hitoshi Manabe, Masashi Shimbo and Masaaki Nagata

Post-Specialisation: Retrofitting Vectors of Words Unseen in Lexical Resources
Ivan Vulić, Goran Glavaš, Nikola Mrkšić and Anna Korhonen

Unsupervised Learning of Sentence Embeddings Using Compositional n-Gram Features
Matteo Pagliardini, Prakhar Gupta and Martin Jaggi

June 2 (continued)

15:30–17:00 Sentiment Analysis 1

Learning Domain Representation for Multi-Domain Sentiment Classification
Qi Liu, Yue Zhang and Jiangming Liu

Learning Sentence Representations over Tree Structures for Target-Dependent Classification
Junwen Duan, Xiao Ding and Ting Liu

Relevant Emotion Ranking from Text Constrained with Emotion Relationships
Deyu Zhou, Yang Yang and Yulan He

Solving Data Sparsity for Aspect Based Sentiment Analysis Using Cross-Linguality and Multi-Linguality
Md Shad Akhtar, Palaash Sawant, Sukanta Sen, Asif Ekbal and Pushpak Bhattacharyya

SRL4ORL: Improving Opinion Role Labeling Using Multi-Task Learning with Semantic Role Labeling
Ana Marasović and Anette Frank

17:00–18:30 NLP Applications 2

17:00–17:18 *Approaching Neural Grammatical Error Correction as a Low-Resource Machine Translation Task*
Marcin Junczys-Dowmunt, Roman Grundkiewicz, Shubha Guha and Kenneth Heafield

17:18–17:36 *Robust Cross-Lingual Hypernymy Detection Using Dependency Context*
Shyam Upadhyay, Yogarshi Vyas, Marine Carpuat and Dan Roth

17:36–17:54 *Noising and Denoising Natural Language: Diverse Backtranslation for Grammar Correction*
Ziang Xie, Guillaume Genthial, Stanley Xie, Andrew Ng and Dan Jurafsky

June 2 (continued)

17:00–18:30 Question Answering 1

17:00–17:18 *Self-Training for Jointly Learning to Ask and Answer Questions*
Mrinmaya Sachan and Eric Xing

17:18–17:36 *The Web as a Knowledge-Base for Answering Complex Questions*
Alon Talmor and Jonathan Berant

17:36–17:54 *A Meaning-Based Statistical English Math Word Problem Solver*
Chao-Chun Liang, Yu-Shiang Wong, Yi-Chung Lin and Keh-Yih Su

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

June 3 (continued)

10:00–10:30 Morning Coffee

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

10:30–10:48 *Fine-Grained Temporal Orientation and its Relationship with Psycho-Demographic Correlates*
Sabyasachi Kamila, Mohammed Hasanuzzaman, Asif Ekbal, Pushpak Bhattacharyya and Andy Way

10:48–11:06 *Querying Word Embeddings for Similarity and Relatedness*
Fatemeh Torabi Asr, Robert Zinkov and Michael Jones

10:30–11:30 Summarization 1

10:30–10:48 *Semantic Structural Evaluation for Text Simplification*
Elior Sulem, Omri Abend and Ari Rappoport

10:48–11:06 *Entity Commonsense Representation for Neural Abstractive Summarization*
Reinald Kim Amplayo, Seonjae Lim and Seung-won Hwang

11:06–11:24 *Newsroom: A Dataset of 1.3 Million Summaries with Diverse Extractive Strategies*
Max Grusky, Mor Naaman and Yoav Artzi

10:30–11:30 Semantics 2

10:30–10:48 *Polyglot Semantic Parsing in APIs*
Kyle Richardson, Jonathan Berant and Jonas Kuhn

11:06–11:24 *Neural Models of Factuality*
Rachel Rudinger, Aaron Steven White and Benjamin Van Durme

June 3 (continued)

10:30–12:00 Information Extraction 3

Accurate Text-Enhanced Knowledge Graph Representation Learning
Bo An, Bo Chen, Xianpei Han and Le Sun

Acquisition of Phrase Correspondences Using Natural Deduction Proofs
Hitomi Yanaka, Koji Mineshima, Pascual Martínez-Gómez and Daisuke Bekki

Automatic Stance Detection Using End-to-End Memory Networks
Mitra Mohtarami, Ramy Baly, James Glass, Preslav Nakov, Lluís Màrquez and Alessandro Moschitti

Collective Entity Disambiguation with Structured Gradient Tree Boosting
Yi Yang, Ozan Irsoy and Kazi Shefaet Rahman

DeepAlignment: Unsupervised Ontology Matching with Refined Word Vectors
Prodromos Kolyvakis, Alexandros Kalousis and Dimitris Kiritsis

Efficient Sequence Learning with Group Recurrent Networks
Fei Gao, Lijun Wu, Li Zhao, Tao Qin, Xueqi Cheng and Tie-Yan Liu

FEVER: a Large-scale Dataset for Fact Extraction and VERification
James Thorne, Andreas Vlachos, Christos Christodoulopoulos and Arpit Mittal

Global Relation Embedding for Relation Extraction
Yu Su, Honglei Liu, Semih Yavuz, Izzeddin Gur, Huan Sun and Xifeng Yan

Implicit Argument Prediction with Event Knowledge
Pengxiang Cheng and Katrin Erk

Improving Temporal Relation Extraction with a Globally Acquired Statistical Resource
Qiang Ning, Hao Wu, Haoruo Peng and Dan Roth

Multimodal Named Entity Recognition for Short Social Media Posts
Seungwhan Moon, Leonardo Neves and Vitor Carvalho

June 3 (continued)

Nested Named Entity Recognition Revisited
Arzoo Katiyar and Claire Cardie

Simultaneously Self-Attending to All Mentions for Full-Abstract Biological Relation Extraction
Patrick Verga, Emma Strubell and Andrew McCallum

Supervised Open Information Extraction
Gabriel Stanovsky, Julian Michael, Luke Zettlemoyer and Ido Dagan

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

Embedding Syntax and Semantics of Prepositions via Tensor Decomposition
Hongyu Gong, Suma Bhat and Pramod Viswanath

From Phonology to Syntax: Unsupervised Linguistic Typology at Different Levels with Language Embeddings
Johannes Bjerva and Isabelle Augenstein

Monte Carlo Syntax Marginals for Exploring and Using Dependency Parses
Katherine Keith, Su Lin Blodgett and Brendan O'Connor

Neural Particle Smoothing for Sampling from Conditional Sequence Models
Chu-Cheng Lin and Jason Eisner

Neural Syntactic Generative Models with Exact Marginalization
Jan Buys and Phil Blunsom

Noise-Robust Morphological Disambiguation for Dialectal Arabic
Nasser Zalmout, Alexander Erdmann and Nizar Habash

Parsing Tweets into Universal Dependencies
Yijia Liu, Yi Zhu, Wanxiang Che, Bing Qin, Nathan Schneider and Noah A. Smith

Robust Multilingual Part-of-Speech Tagging via Adversarial Training
Michihiro Yasunaga, Jungo Kasai and Dragomir Radev

Universal Dependency Parsing for Hindi-English Code-Switching
Irshad Bhat, Riyaz A. Bhat, Manish Shrivastava and Dipti Sharma

What's Going On in Neural Constituency Parsers? An Analysis
David Gaddy, Mitchell Stern and Dan Klein

11:30–12:30 Machine Learning 3

11:30–11:48 *Deep Generative Model for Joint Alignment and Word Representation*
Miguel Rios, Wilker Aziz and Khalil Simaan

12:06–12:24 *Learning Word Embeddings for Low-Resource Languages by PU Learning*
Chao Jiang, Hsiang-Fu Yu, Cho-Jui Hsieh and Kai-Wei Chang

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

11:30–11:48 *Exploring the Role of Prior Beliefs for Argument Persuasion*
Esin Durmus and Claire Cardie

11:48–12:06 *Inducing a Lexicon of Abusive Words – a Feature-Based Approach*
Michael Wiegand, Josef Ruppenhofer, Anna Schmidt and Clayton Greenberg

12:06–12:24 *Author Commitment and Social Power: Automatic Belief Tagging to Infer the Social Context of Interactions*
Vinodkumar Prabhakaran, Premkumar Ganeshkumar and Owen Rambow

June 3 (continued)

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

12:30–14:00 Lunch

14:00–15:00 Industry Track Keynote

15:00–15:30 Afternoon Coffee

15:30–17:00 Text Mining 1

15:30–15:48 *Comparing Automatic and Human Evaluation of Local Explanations for Text Classification*
Dong Nguyen

15:48–16:06 *Deep Temporal-Recurrent-Replicated-Softmax for Topical Trends over Time*
Pankaj Gupta, Subburam Rajaram, Hinrich Schütze and Bernt Andrassy

16:06–16:24 *Lessons from the Bible on Modern Topics: Low-Resource Multilingual Topic Model Evaluation*
Shudong Hao, Jordan Boyd-Graber and Michael J. Paul

16:24–16:42 *Explainable Prediction of Medical Codes from Clinical Text*
James Mullenbach, Sarah Wiegreffe, Jon Duke, Jimeng Sun and Jacob Eisenstein

June 3 (continued)

15:30–17:00 Semantics 3

15:30–15:48 *A Broad-Coverage Challenge Corpus for Sentence Understanding through Inference*
Adina Williams, Nikita Nangia and Samuel Bowman

15:48–16:06 *Filling Missing Paths: Modeling Co-occurrences of Word Pairs and Dependency Paths for Recognizing Lexical Semantic Relations*
Koki Washio and Tsuneaki Kato

16:06–16:24 *Specialising Word Vectors for Lexical Entailment*
Ivan Vulić and Nikola Mrkšić

16:24–16:42 *Cross-Lingual Abstract Meaning Representation Parsing*
Marco Damonte and Shay B. Cohen

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

15:30–15:48 *Sentences with Gapping: Parsing and Reconstructing Elided Predicates*
Sebastian Schuster, Joakim Nivre and Christopher D. Manning

15:48–16:06 *A Structured Syntax-Semantics Interface for English-AMR Alignment*
Ida Szubert, Adam Lopez and Nathan Schneider

16:06–16:24 *End-to-End Graph-Based TAG Parsing with Neural Networks*
Jungo Kasai, Robert Frank, Pauli Xu, William Merrill and Owen Rambow

16:24–16:42 *Colorless Green Recurrent Networks Dream Hierarchically*
Kristina Gulordava, Piotr Bojanowski, Edouard Grave, Tal Linzen and Marco Baroni

June 3 (continued)

15:30–17:00 Machine Learning 4

Diverse Few-Shot Text Classification with Multiple Metrics
Mo Yu, Xiaoxiao Guo, Jinfeng Yi, Shiyu Chang, Saloni Potdar, Yu Cheng, Gerald Tesauro, Haoyu Wang and Bowen Zhou

Early Text Classification Using Multi-Resolution Concept Representations
Adrian Pastor López Monroy, Fabio A. González, Manuel Montes, Hugo Jair Escalante and Thamar Solorio

Multinomial Adversarial Networks for Multi-Domain Text Classification
Xilun Chen and Claire Cardie

Pivot Based Language Modeling for Improved Neural Domain Adaptation
Yftah Ziser and Roi Reichart

Reinforced Co-Training
Jiawei Wu, Lei Li and William Yang Wang

Tensor Product Generation Networks for Deep NLP Modeling
Qiuyuan Huang, Paul Smolensky, Xiaodong He, Li Deng and Dapeng Wu

The Context-Dependent Additive Recurrent Neural Net
Quan Hung Tran, Tuan Lai, Gholamreza Haffari, Ingrid Zukerman, Trung Bui and Hung Bui

June 3 (continued)

15:30–17:00 Machine Translation 2

Combining Character and Word Information in Neural Machine Translation Using a Multi-Level Attention
Huadong Chen, Shujian Huang, David Chiang, Xinyu Dai and Jiajun Chen

Dense Information Flow for Neural Machine Translation
Yanyao Shen, Xu Tan, Di He, Tao Qin and Tie-Yan Liu

Evaluating Discourse Phenomena in Neural Machine Translation
Rachel Bawden, Rico Sennrich, Alexandra Birch and Barry Haddow

Fast Lexically Constrained Decoding with Dynamic Beam Allocation for Neural Machine Translation
Matt Post and David Vilar

Guiding Neural Machine Translation with Retrieved Translation Pieces
Jingyi Zhang, Masao Utiyama, Eiichro Sumita, Graham Neubig and Satoshi Nakamura

Handling Homographs in Neural Machine Translation
Frederick Liu, Han Lu and Graham Neubig

Improving Neural Machine Translation with Conditional Sequence Generative Adversarial Nets
Zhen Yang, Wei Chen, Feng Wang and Bo Xu

Neural Machine Translation for Bilingually Scarce Scenarios: a Deep Multi-Task Learning Approach
Poorya Zaremoodi and Gholamreza Haffari

Self-Attentive Residual Decoder for Neural Machine Translation
Lesly Miculicich Werlen, Nikolaos Pappas, Dhananjay Ram and Andrei Popescu-Belis

Target Foresight Based Attention for Neural Machine Translation
Xintong Li, Lemao Liu, Zhaopeng Tu, Shuming Shi and Max Meng

June 3 (continued)

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

Context Sensitive Neural Lemmatization with Lematus
Toms Bergmanis and Sharon Goldwater

Modeling Noisiness to Recognize Named Entities using Multitask Neural Networks on Social Media
Gustavo Aguilar, Adrian Pastor López Monroy, Fabio González and Thamar Solorio

Reusing Weights in Subword-Aware Neural Language Models
Zhenisbek Assylbekov and Rustem Takhanov

Simple Models for Word Formation in Slang
Vivek Kulkarni and William Yang Wang

Using Morphological Knowledge in Open-Vocabulary Neural Language Models
Austin Matthews, Graham Neubig and Chris Dyer

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

17:40–18:05 *Discriminative Training Methods for Hidden Markov Models: Theory and Experiments with Perceptron Algorithms (Test of Time)*
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

10:30–10:48 *A Neural Layered Model for Nested Named Entity Recognition*
Meizhi Ju, Makoto Miwa and Sophia Ananiadou

10:48–11:06 *DR-BiLSTM: Dependent Reading Bidirectional LSTM for Natural Language Inference*
Reza Ghaeini, Sadid A. Hasan, Vivek Datla, Joey Liu, Kathy Lee, Ashequl Qadir, Yuan Ling, Aaditya Prakash, Xiaoli Fern and Oladimeji Farri

11:06–11:24 *KBGAN: Adversarial Learning for Knowledge Graph Embeddings*
Liwei Cai and William Yang Wang

June 4 (continued)

10:30–11:30 Semantics 4

10:30–15:48 *Multimodal Frame Identification with Multilingual Evaluation*
Teresa Botschen, Iryna Gurevych, Jan-Christoph Klie, Hatem Mousselly Sergieh and Stefan Roth

10:48–11:06 *Learning Joint Semantic Parsers from Disjoint Data*
Hao Peng, Sam Thomson, Swabha Swayamdipta and Noah A. Smith

11:06–11:24 *Identifying Semantic Divergences in Parallel Text without Annotations*
Yogarshi Vyas, Xing Niu and Marine Carpuat

10:30–11:30 Generation 2

10:30–10:48 *Bootstrapping Generators from Noisy Data*
Laura Perez-Beltrachini and Mirella Lapata

10:48–11:06 *SHAPED: Shared-Private Encoder-Decoder for Text Style Adaptation*
Ye Zhang, Nan Ding and Radu Soricut

11:06–11:24 *Generating Descriptions from Structured Data Using a Bifocal Attention Mechanism and Gated Orthogonalization*
Preksha Nema, Shreyas Shetty, Parag Jain, Anirban Laha, Karthik Sankaranarayanan and Mitesh M. Khapra

10:30–12:00 Question Answering 2

CliCR: a Dataset of Clinical Case Reports for Machine Reading Comprehension
Simon Suster and Walter Daelemans

Learning to Collaborate for Question Answering and Asking
Duyu Tang, Nan Duan, Zhao Yan, Zhirui Zhang, Yibo Sun, Shujie Liu, Yuanhua Lv and Ming Zhou

Learning to Rank Question-Answer Pairs Using Hierarchical Recurrent Encoder with Latent Topic Clustering
Seunghyun Yoon, Joongbo Shin and Kyomin Jung

Supervised and Unsupervised Transfer Learning for Question Answering
Yu-An Chung, Hung-yi Lee and James Glass

Tracking State Changes in Procedural Text: a Challenge Dataset and Models for Process Paragraph Comprehension
Bhavana Dalvi, Lifu Huang, Niket Tandon, Wen-tau Yih and Peter Clark

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

Combining Deep Learning and Topic Modeling for Review Understanding in Context-Aware Recommendation
Mingmin Jin, Xin Luo, Huiling Zhu and Hankz Hankui Zhuo

Deconfounded Lexicon Induction for Interpretable Social Science
Reid Pryzant, Kelly Shen, Dan Jurafsky and Stefan Wagner

Detecting Denial-of-Service Attacks from Social Media Text: Applying NLP to Computer Security
Nathanael Chambers, Ben Fry and James McMasters

The Importance of Calibration for Estimating Proportions from Annotations
Dallas Card and Noah A. Smith

June 4 (continued)

10:30–12:00 Summarization 2

A Dataset of Peer Reviews (PeerRead): Collection, Insights and NLP Applications
Dongyeop Kang, Waleed Ammar, Bhavana Dalvi, Madeleine van Zuylen, Sebastian Kohlmeier, Eduard Hovy and Roy Schwartz

Deep Communicating Agents for Abstractive Summarization
Asli Celikyilmaz, Antoine Bosselut, Xiaodong He and Yejin Choi

Encoding Conversation Context for Neural Keyphrase Extraction from Microblog Posts
Yingyi Zhang, Jing Li, Yan Song and Chengzhi Zhang

Estimating Summary Quality with Pairwise Preferences
Markus Zopf

Generating Topic-Oriented Summaries Using Neural Attention
Kundan Krishna and Balaji Vasan Srinivasan

Generative Bridging Network for Neural Sequence Prediction
Wenhu Chen, Guanlin Li, Shuo Ren, Shujie Liu, Zhirui Zhang, Mu Li and Ming Zhou

Higher-Order Syntactic Attention Network for Longer Sentence Compression
Hidetaka Kamigaito, Katsuhiko Hayashi, Tsutomu Hirao and Masaaki Nagata

Neural Storyline Extraction Model for Storyline Generation from News Articles
Deyu Zhou, Linsen Guo and Yulan He

Provable Fast Greedy Compressive Summarization with Any Monotone Submodular Function
Shinsaku Sakaue, Tsutomu Hirao, Masaaki Nishino and Masaaki Nagata

Ranking Sentences for Extractive Summarization with Reinforcement Learning
Shashi Narayan, Shay B. Cohen and Mirella Lapata

Relational Summarization for Corpus Analysis
Abram Handler and Brendan O'Connor

What's This Movie About? A Joint Neural Network Architecture for Movie Content Analysis
Philip John Gorinski and Mirella Lapata

Which Scores to Predict in Sentence Regression for Text Summarization?
Markus Zopf, Eneldo Loza Mencía and Johannes Fürnkranz

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

11:30–11:48 *A Hierarchical Latent Structure for Variational Conversation Modeling*
Yookoon Park, Jaemin Cho and Gunhee Kim

11:48–12:06 *Detecting Egregious Conversations between Customers and Virtual Agents*
Tommy Sandbank, Michal Shmueli-Scheuer, Jonathan Herzig, David Konopnicki, John Richards and David Piorkowski

12:06–12:24 *Learning to Disentangle Interleaved Conversational Threads with a Siamese Hierarchical Network and Similarity Ranking*
Jyun-Yu Jiang, Francine Chen, Yan-Ying Chen and Wei Wang

11:30–12:30 Information Extraction 5

11:30–11:48 *Variational Knowledge Graph Reasoning*
Wenhu Chen, Wenhan Xiong, Xifeng Yan and William Yang Wang

11:48–12:06 *Inducing Temporal Relations from Time Anchor Annotation*
Fei Cheng and Yusuke Miyao

12:06–12:24 *ELDEN: Improved Entity Linking Using Densified Knowledge Graphs*
Priya Radhakrishnan, Partha Talukdar and Vasudeva Varma

June 4 (continued)

11:30–12:30 Generation 3

11:30–11:48 *Interpretable Charge Predictions for Criminal Cases: Learning to Generate Court Views from Fact Descriptions*
Hai Ye, Xin Jiang, Zhunchen Luo and Wenhan Chao

11:48–12:06 *Delete, Retrieve, Generate: a Simple Approach to Sentiment and Style Transfer*
Juncen Li, Robin Jia, He He and Percy Liang

12:06–12:24 *Adversarial Example Generation with Syntactically Controlled Paraphrase Networks*
Mohit Iyyer, John Wieting, Kevin Gimpel and Luke Zettlemoyer

12:30–14:00 Lunch

13:00–14:00 *NAACL Business Meeting*
Julia Hockenmaier, University of Illinois at Urbana-Champaign

14:00–15:30 Sentiment Analysis 2

14:00–14:18 *Sentiment Analysis: It's Complicated!*
Kian Kenyon-Dean, Eisha Ahmed, Scott Fujimoto, Jeremy Georges-Filteau, Christopher Glasz, Barleen Kaur, Auguste Lalande, Shruti Bhanderi, Robert Belfer, Nirmal Kanagasabai, Roman Sarrazingendron, Rohit Verma and Derek Ruths

14:18–14:36 *Multi-Task Learning of Pairwise Sequence Classification Tasks over Disparate Label Spaces*
Isabelle Augenstein, Sebastian Ruder and Anders Søgaard

14:36–14:54 *Word Emotion Induction for Multiple Languages as a Deep Multi-Task Learning Problem*
Sven Buechel and Udo Hahn

14:54–15:12 *Human Needs Categorization of Affective Events Using Labeled and Unlabeled Data*
Haibo Ding and Ellen Riloff

June 4 (continued)

14:00–15:30 Discourse and Pragmatics 2

14:00–14:18 *The Argument Reasoning Comprehension Task: Identification and Reconstruction of Implicit Warrants*
Ivan Habernal, Henning Wachsmuth, Iryna Gurevych and Benno Stein

14:18–14:36 *Linguistic Cues to Deception and Perceived Deception in Interview Dialogues*
Sarah Ita Levitan, Angel Maredia and Julia Hirschberg

14:36–14:54 *Unified Pragmatic Models for Generating and Following Instructions*
Daniel Fried, Jacob Andreas and Dan Klein

14:54–15:12 *Hierarchical Structured Model for Fine-to-Coarse Manifesto Text Analysis*
Shivashankar Subramanian, Trevor Cohn and Timothy Baldwin

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

15:12–15:30 *Behavior Analysis of NLI Models: Uncovering the Influence of Three Factors on Robustness*
Ivan Sanchez, Jeff Mitchell and Sebastian Riedel

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

Assessing Language Proficiency from Eye Movements in Reading
Yevgeni Berzak, Boris Katz and Roger Levy

Comparing Theories of Speaker Choice Using a Model of Classifier Production in Mandarin Chinese
Meilin Zhan and Roger Levy

Spotting Spurious Data with Neural Networks
Hadi Amiri, Timothy Miller and Guergana Savova

The Timing of Lexical Memory Retrievals in Language Production
Jeremy Cole and David Reitter

June 4 (continued)

Unsupervised Induction of Linguistic Categories with Records of Reading, Speaking, and Writing
Maria Barrett, Ana Valeria Gonzalez-Garduño, Lea Frermann and Anders Søgaard

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

Challenging Reading Comprehension on Daily Conversation: Passage Completion on Multiparty Dialog
Kaixin Ma, Tomasz Jurczyk and Jinho D. Choi

Dialog Generation Using Multi-Turn Reasoning Neural Networks
Xianchao Wu, Ander Martinez and Momo Klyen

Dialogue Learning with Human Teaching and Feedback in End-to-End Trainable Task-Oriented Dialogue Systems
Bing Liu, Gokhan Tür, Dilek Hakkani-Tür, Pararth Shah and Larry Heck

LSDSCC: a Large Scale Domain-Specific Conversational Corpus for Response Generation with Diversity Oriented Evaluation Metrics
Zhen Xu, Nan Jiang, Bingquan Liu, Wenge Rong, Bowen Wu, Baoxun Wang, Zhuoran Wang and Xiaolong Wang

14:00–15:30 Text Mining 2

EMR Coding with Semi-Parametric Multi-Head Matching Networks
Anthony Rios and Ramakanth Kavuluru

Factors Influencing the Surprising Instability of Word Embeddings
Laura Wendlandt, Jonathan K. Kummerfeld and Rada Mihalcea

Mining Evidences for Concept Stock Recommendation
Qi Liu and Yue Zhang

June 4 (continued)

14:00–15:30 Speech 2

Binarized LSTM Language Model
Xuan Liu, Di Cao and Kai Yu

Conversational Memory Network for Emotion Recognition in Dyadic Dialogue Videos
Devamanyu Hazarika, Soujanya Poria, Amir Zadeh, Erik Cambria, Louis-Philippe Morency and Roger Zimmermann

How Time Matters: Learning Time-Decay Attention for Contextual Spoken Language Understanding in Dialogues
Shang-Yu Su, Pei-Chieh Yuan and Yun-Nung Chen

Towards Understanding Text Factors in Oral Reading
Anastassia Loukina, Van Rynald T. Liceralde and Beata Beigman Klebanov

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

Generating Bilingual Pragmatic Color References
Will Monroe, Jennifer Hu, Andrew Jong and Christopher Potts

Learning with Latent Language
Jacob Andreas, Dan Klein and Sergey Levine

Object Counts! Bringing Explicit Detections Back into Image Captioning
Josiah Wang, Pranava Swaroop Madhyastha and Lucia Specia

Quantifying the Visual Concreteness of Words and Topics in Multimodal Datasets
Jack Hessel, David Mimno and Lillian Lee

Speaker Naming in Movies
Mahmoud Azab, Mingzhe Wang, Max Smith, Noriyuki Kojima, Jia Deng and Rada Mihalcea

Stacking with Auxiliary Features for Visual Question Answering
Nazneen Fatema Rajani and Raymond Mooney

June 4 (continued)

15:30–16:00 Afternoon Coffee

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

17:00–17:18 *Deep Contextualized Word Representations*
Matthew Peters, Mark Neumann, Mohit Iyyer, Matt Gardner, Christopher Clark, Kenton Lee and Luke Zettlemoyer

17:18–17:36 *Learning to Map Context-Dependent Sentences to Executable Formal Queries*
Alane Suhr, Srinivasan Iyer and Yoav Artzi

17:36–17:54 *Neural Text Generation in Stories Using Entity Representations as Context*
Elizabeth Clark, Yangfeng Ji and Noah A. Smith

17:54–18:12 *Recurrent Neural Networks as Weighted Language Recognizers*
Yining Chen, Sorcha Gilroy, Andreas Maletti, Jonathan May and Kevin Knight