

- 1, TITLE: Enabling Real-time Neural IME with Incremental Vocabulary Selection
<https://www.aclweb.org/anthology/N19-2001>
AUTHORS: Jiali Yao, Raphael Shu, Xinjian Li, Katsutoshi Ohtsuki, Hideki Nakayama,
HIGHLIGHT: In this work, we articulate the bottleneck of neural IME decoding to be the heavy softmax computation over a large vocabulary.

- 2, TITLE: Locale-agnostic Universal Domain Classification Model in Spoken Language Understanding
<https://www.aclweb.org/anthology/N19-2002>
AUTHORS: Jihwan Lee, Ruhi Sarikaya, Young-Bum Kim,
HIGHLIGHT: In this paper, we introduce an approach for leveraging available data across multiple locales sharing the same language to 1) improve domain classification model accuracy in Spoken Language Understanding and user experience even if new locales do not have sufficient data and 2) reduce the cost of scaling the domain classifier to a large number of locales.

- 3, TITLE: Practical Semantic Parsing for Spoken Language Understanding
<https://www.aclweb.org/anthology/N19-2003>
AUTHORS: Marco Damonte, Rahul Goel, Tagyoung Chung,
HIGHLIGHT: We build a transfer learning framework for executable semantic parsing.

- 4, TITLE: Fast Prototyping a Dialogue Comprehension System for Nurse-Patient Conversations on Symptom Monitoring
<https://www.aclweb.org/anthology/N19-2004>
AUTHORS: Zhengyuan Liu, Hazel Lim, Nur Farah Ain Suhaimi, Shao Chuen Tong, Sharon Ong, Angela Ng, Sheldon Lee, Michael R. Macdonald, Savitha Ramasamy, Pavitra Krishnaswamy, Wai Leng Chow, Nancy F. Chen,
HIGHLIGHT: In this work, we investigate fast prototyping of a dialogue comprehension system by leveraging on minimal nurse-to-patient conversations.

- 5, TITLE: Graph Convolution for Multimodal Information Extraction from Visually Rich Documents
<https://www.aclweb.org/anthology/N19-2005>
AUTHORS: Xiaojing Liu, Feiyu Gao, Qiong Zhang, Huasha Zhao,
HIGHLIGHT: In this paper, we introduce a graph convolution based model to combine textual and visual information presented in VRDs.

- 6, TITLE: Diversifying Reply Suggestions Using a Matching-Conditional Variational Autoencoder
<https://www.aclweb.org/anthology/N19-2006>
AUTHORS: Budhaditya Deb, Peter Bailey, Milad Shokouhi,
HIGHLIGHT: We propose a constrained-sampling approach to make the variational inference in M-CVAE efficient for our production system.

- 7, TITLE: Goal-Oriented End-to-End Conversational Models with Profile Features in a Real-World Setting
<https://www.aclweb.org/anthology/N19-2007>
AUTHORS: Yichao Lu, Manisha Srivastava, Jared Kramer, Heba Elfardy, Andrea Kahn, Song Wang, Vikas Bhardwaj,
HIGHLIGHT: We present real-world results for two issue types in the customer service domain.

- 8, TITLE: Detecting Customer Complaint Escalation with Recurrent Neural Networks and Manually-Engineered Features
<https://www.aclweb.org/anthology/N19-2008>
AUTHORS: Wei Yang, Luchen Tan, Chunwei Lu, Anqi Cui, Han Li, Xi Chen, Kun Xiong, Muzi Wang, Ming Li, Jian Pei, Jimmy Lin,
HIGHLIGHT: We describe a hybrid model that tackles this challenge by integrating recurrent neural networks with manually-engineered features.

- 9, TITLE: Multi-Modal Generative Adversarial Network for Short Product Title Generation in Mobile E-Commerce
<https://www.aclweb.org/anthology/N19-2009>
AUTHORS: Jianguo Zhang, Pengcheng Zou, Zhao Li, Yao Wan, Xiuming Pan, Yu Gong, Philip S. Yu,
HIGHLIGHT: In this paper, we propose a Multi-Modal Generative Adversarial Network (MM-GAN) for short product title generation in E-Commerce, which innovatively incorporates image information and attribute tags from product, as well as textual information from original long titles.

- 10, TITLE: A Case Study on Neural Headline Generation for Editing Support
<https://www.aclweb.org/anthology/N19-2010>
AUTHORS: Kazuma Murao, Ken Kobayashi, Hayato Kobayashi, Taichi Yatsuka, Takeshi Masuyama, Tatsuru Higurashi, Yoshimune Tabuchi,

HIGHLIGHT: In this paper, we describe a practical use case of neural headline generation in a news aggregator, where dozens of professional editors constantly select important news articles and manually create their headlines, which are much shorter than the original headlines.

11, **TITLE:** Neural Lexicons for Slot Tagging in Spoken Language Understanding
<https://www.aclweb.org/anthology/N19-2011>
AUTHORS: Kyle Williams,
HIGHLIGHT: We develop models that encode lexicon information as neural features for use in a Long-short term memory neural network.

12, **TITLE:** Active Learning for New Domains in Natural Language Understanding
<https://www.aclweb.org/anthology/N19-2012>
AUTHORS: Stanislav Peshterliev, John Kearney, Abhyuday Jagannatha, Imre Kiss, Spyros Matsoukas,
HIGHLIGHT: We propose an algorithm called Majority-CRF that uses an ensemble of classification models to guide the selection of relevant utterances, as well as a sequence labeling model to help prioritize informative examples.

13, **TITLE:** Scaling Multi-Domain Dialogue State Tracking via Query Reformulation
<https://www.aclweb.org/anthology/N19-2013>
AUTHORS: Pushpendre Rastogi, Arpit Gupta, Tongfei Chen, Mathias Lambert,
HIGHLIGHT: We present a novel approach to dialogue state tracking and referring expression resolution tasks.

14, **TITLE:** Are the Tools up to the Task? an Evaluation of Commercial Dialog Tools in Developing Conversational Enterprise-grade Dialog Systems
<https://www.aclweb.org/anthology/N19-2014>
AUTHORS: Marie Meteer, Meghan Hickey, Carmi Rothberg, David Nahamoo, Ellen Eide Kislal,
HIGHLIGHT: In this paper, we provide both quantitative and qualitative results in three main areas: natural language understanding, dialog, and text generation.

15, **TITLE:** Development and Deployment of a Large-Scale Dialog-based Intelligent Tutoring System
<https://www.aclweb.org/anthology/N19-2015>
AUTHORS: Shazia Afzal, Tejas Dhamecha, Nirmal Mukhi, Renuka Sindhgatta, Smit Marvaniya, Matthew Ventura, Jessica Yarbro,
HIGHLIGHT: In this paper, we describe and reflect on the design, methods, decisions and assessments that led to the successful deployment of our AI driven DBT currently being used by several hundreds of college level students for practice and self-regulated study in diverse subjects like Sociology, Communications, and American Government.

16, **TITLE:** Learning When Not to Answer: a Ternary Reward Structure for Reinforcement Learning Based Question Answering
<https://www.aclweb.org/anthology/N19-2016>
AUTHORS: Fr deric Godin, Anjishnu Kumar, Arpit Mittal,
HIGHLIGHT: In this paper, we investigate the challenges of using reinforcement learning agents for question-answering over knowledge graphs for real-world applications.

17, **TITLE:** Extraction of Message Sequence Charts from Software Use-Case Descriptions
<https://www.aclweb.org/anthology/N19-2017>
AUTHORS: Girish Palshikar, Nitin Ramrakhiyani, Sangameshwar Patil, Sachin Pawar, Swapnil Hingmire, Vasudeva Varma, Pushpak Bhattacharyya,
HIGHLIGHT: In this paper, we describe a linguistic knowledge-based approach to extract MSCs from use-cases.

18, **TITLE:** Improving Knowledge Base Construction from Robust Infobox Extraction
<https://www.aclweb.org/anthology/N19-2018>
AUTHORS: Boya Peng, Yejin Huh, Xiao Ling, Michele Banko,
HIGHLIGHT: This paper presents a robust approach that tackles all three challenges.

19, **TITLE:** A k-Nearest Neighbor Approach towards Multi-level Sequence Labeling
<https://www.aclweb.org/anthology/N19-2019>
AUTHORS: Yue Chen, John Chen,
HIGHLIGHT: In this paper we present a new method for intent recognition for complex dialog management in low resource situations.

- 20, TITLE: Train One Get One Free: Partially Supervised Neural Network for Bug Report Duplicate Detection and Clustering
<https://www.aclweb.org/anthology/N19-2020>
AUTHORS: Lahari Poddar, Leonardo Neves, William Brendel, Luis Marujo, Sergey Tulyakov, Pradeep Karuturi,
HIGHLIGHT: This paper proposes a neural architecture that can jointly (1) detect if two bug reports are duplicates, and (2) aggregate them into latent topics.
- 21, TITLE: Robust Semantic Parsing with Adversarial Learning for Domain Generalization
<https://www.aclweb.org/anthology/N19-2021>
AUTHORS: Gabriel Marzinotto, Geraldine Damnati, Frederic Bechet, Benoit Favre,
HIGHLIGHT: We propose to perform Semantic Parsing with a domain classification adversarial task, covering various use-cases with or without explicit knowledge of the domain.
- 22, TITLE: TOI-CNN: a Solution of Information Extraction on Chinese Insurance Policy
<https://www.aclweb.org/anthology/N19-2022>
AUTHORS: Lin Sun, Kai Zhang, Fule Ji, Zhenhua Yang,
HIGHLIGHT: This paper shows a problem of Element Tagging on Insurance Policy (ETIP).
We have collected a large Chinese insurance contract dataset and labeled the critical elements of seven categories to test the performance of the proposed method.
- 23, TITLE: Cross-lingual Transfer Learning for Japanese Named Entity Recognition
<https://www.aclweb.org/anthology/N19-2023>
AUTHORS: Andrew Johnson, Penny Karanasou, Judith Gaspers, Dietrich Klakow,
HIGHLIGHT: This work explores cross-lingual transfer learning (TL) for named entity recognition, focusing on bootstrapping Japanese from English.
- 24, TITLE: Neural Text Normalization with Subword Units
<https://www.aclweb.org/anthology/N19-2024>
AUTHORS: Courtney Mansfield, Ming Sun, Yuzong Liu, Ankur Gandhe, Bjorn Hoffmeister,
HIGHLIGHT: In this paper, we frame TN as a machine translation task and tackle it with sequence-to-sequence (seq2seq) models.
- 25, TITLE: Audio De-identification - a New Entity Recognition Task
<https://www.aclweb.org/anthology/N19-2025>
AUTHORS: Ido Cohn, Itay Laish, Genady Beryozkin, Gang Li, Izhak Shafran, Idan Szpektor, Tzvika Hartman, Avinatan Hassidim, Yossi Matias,
HIGHLIGHT: To this end, we define the task of audio de-ID, in which audio spans with entity mentions should be detected. Finally, we introduce a novel metric for audio de-ID and a new evaluation benchmark consisting of a large labeled segment of the Switchboard and Fisher audio datasets and detail our pipeline's results on it.
- 26, TITLE: In Other News: a Bi-style Text-to-speech Model for Synthesizing Newscaster Voice with Limited Data
<https://www.aclweb.org/anthology/N19-2026>
AUTHORS: Nishant Prateek, Mateusz Ąajszczak, Roberto Barra-Chicote, Thomas Drugman, Jaime Lorenzo-Trueba, Thomas Merritt, Srikanth Ronanki, Trevor Wood,
HIGHLIGHT: In this paper different styles of speech are analysed based on prosodic variations, from this a model is proposed to synthesise speech in the style of a newscaster, with just a few hours of supplementary data.
We pose the problem of synthesising in a target style using limited data as that of creating a bi-style model that can synthesise both neutral-style and newscaster-style speech via a one-hot vector which factorises the two styles.
- 27, TITLE: Generate, Filter, and Rank: Grammaticality Classification for Production-Ready NLG Systems
<https://www.aclweb.org/anthology/N19-2027>
AUTHORS: Ashwini Challa, Kartikeya Upasani, Anusha Balakrishnan, Rajen Subba,
HIGHLIGHT: We propose the use of a generate, filter, and rank framework, in which candidate responses are first filtered to eliminate unacceptable responses, and then ranked to select the best response.
We release a grammatical classification and semantic correctness classification dataset for the weather domain that consists of responses generated by 3 data-driven NLG systems.
- 28, TITLE: Content-based Dwell Time Engagement Prediction Model for News Articles
<https://www.aclweb.org/anthology/N19-2028>
AUTHORS: Heidar Davoudi, Aijun An, Gordon Edall,
HIGHLIGHT: In this paper, we propose a novel content-based approach based on a deep neural network architecture for predicting article dwell times.