JUNJIE WU

Email: wujj38@mail2.sysu.edu.cn Website: https://wujunjie1998.github.io

EDUCATION

Sun Yat-sen University, Guangzhou, China *September 2016 - June 2020 (Expected)*
(*Second-class, Third-class Scholarship of Sun Yat-sen University 2016-2017, 2017-2018*)
Bachelor in Statistics, School of Mathematics, Major GPA: 3.8/4.0

PUBLICATIONS

Jiajun Bao*, **Junjie Wu***, Yiming Zhang*, Eshwar Chandrasekharan and David Jurgens. "Conversations Gone Alright: Predicting Prosocial Outcomes in Online Conversations" (Under final preparation, will submit to Proceedings of the AAAI International Conference on Web and Social Media (ICWSM), 2020) (*: Equal contribution. The three authors' order is alphabetical.)

Junjie Wu, Sixing Wu and Yongfeng Huang. "Lexicon-enhanced neural network model for emotion classication" Knowledge-Based Systems, 2019 (Under Submission)

RESEARCH EXPERIENCES & PROJECTS

CoAI Lab Tsinghua University, **Advisor: Prof Minlie Huang** *Oct 2019 - Present*
Project: Tracking and controlling topic transition in document-grounded dialog system

- Employed a Hierarchical Recurrent Encoder-Decoder framework to track topic transitions in the conversation history.
- Adopted a knowledge graph to dynamically save relations between appeared topics.
- Added a topic predictor before the knowledge selector to decide whether to widen or deepen current topics, aiming to generate more informative responses as well as using background knowledge effectively.

Blablablab University of Michigan, **Advisor: Prof David Jurgens** *July 2019 - Present*
Project: Predicting prosocial (defined by many metrics like healthy, supportive, politeness) **outcomes in online conversations from large scale of Reddit data**

- Constructed multiple text-based features from a large scale of Reddit data (more than 100 million lines).
- Defined a set of prosocial metrics based on prior literature and coded them for our Reddit data corpus (Including employing a fine-tuned BERT model to produce some of the metrics. These models were wrapped to public python packages).
- Trained a combination of linear fixed/ mixed-effects models and BERT models (Including single fine-tuned BERT for each metric and a huge BERT with a multi-task based output for all metrics) to forecast whether a conversation will have prosocial outcomes.
- Analyzed how different prosocial outcomes are impacted by our features, made suggestions for users and developers of social medias to build better communicating environments through a human studying.

NGN Lab Tsinghua University, **Advisor: Prof Yongfeng Huang**, *January 2019 - May 2019*
Project: English text emotion analysis and classification

- Preprocessed text data through tokenizing, filtering mispellings and special characters as well as text vectorization.
- Summarized the related research of emotion classification and implemented several baseline models including BiLSTM and attention mechanism to perform emotion classification in English text.
- Designed a novel multi-task learning framework to learn textual emotion features from emotion lexicon and corpus simultaneously, which improved the performance of emotion prediction on our dataset for nearly one percent (measured by F1-score).

NGN Lab Tsinghua University, **Advisor: Prof Yongfeng Huang**, *July 2018 - August 2018*
Project: Chinese text sentiment analysis

- Employed a bipartite graph-based sorting algorithm to extract pairs of opinion words and opinion targets from Chinese text corpus.
- Adopted a LSTM-based model to classify the sentiment polarity of each binary pair(an opinion word and an opinion target), then used these binary pairs to enrich existing Chinese sentiment lexicons.

TECHNICAL SKILLS AND OTHERS

Programming: Python, Pytorch, Matlab, R, Latex
TOEFL: 105 **GRE**: V155 Q170 AW4.0