

EMNLP 2020

The 3rd Clinical Natural Language Processing Workshop

Proceedings of the Workshop

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Introduction

This volume contains papers from the 3rd Workshop on Clinical Natural Language Processing (ClinicalNLP), held at EMNLP 2020.

Clinical text offers unique challenges that differentiate it not only from open-domain data, but from other types of text in the biomedical domain as well. Notably, clinical text contains a significant number of abbreviations, medical terms, and other clinical jargon. Clinical narratives are characterized by nonstandard document structures that are often critical to overall understanding. Narrative provider notes are designed to communicate with other experts while at the same time serving as a legal record. Finally, clinical notes contain sensitive patient-specific information that raise privacy and security concerns that present special challenges for natural language systems. This workshop focuses on the work that develops methods to address the above challenges, with the goal of advancing state-of-the-art in clinical NLP.

This year, we received the total of 48 submissions, out of which 14 were accepted as oral presentations and 19 as posters.

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Byron Wallace, Northeastern University
Yanshan Wang, Mayo Clinic
Ben Wellner, The MITRE Corporation
Stephen Wu, University of Texas Health Science Center at Houston
Dongfang Xu, University of Arizona
Rui Zhang, University of Minnesota

Invited Speaker:

Hong Yu, UMass Lowell

Talk Title: Deep Learning is Conquering Human Tasks. How Far Can it Go in Medicine? Advances, Challenges, and Future Directions

Biography: Hong Yu is faculty at the Department of Computer Science and Director of Biomedical and Health Research in Data Sciences, University of Massachusetts Lowell. She is also a Research Health Scientist at the Edith Nourse Rogers Memorial Veterans Hospital. She holds adjunct faculty positions at UMass Amherst and UMass Medical School. She is an elected fellow of the American College of Medical Informatics. She has published over 200 peer-reviewed articles in natural language processing and applied machine learning.

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Hong Yu

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Hong Yu

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So Yeon Min, Preethi Raghavan and Peter Szolovits

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Justin Lovelace, Bobak Mortazavi

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Jianmo Ni, Chun-Nan Hsu, Amilcare Gentili, Julian McAuley

14:20–14:30 *Characterizing the Value of Information in Medical Notes*

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14:30–14:40 *PharmMT: A Neural Machine Translation Approach to Simplify Prescription Directions*

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15:15–15:25 *Dr. Summarize: Global Summarization of Medical Dialogue by Exploiting Local Structures*

Anirudh Joshi, Namit Katariya, Xavier Amatriain, Anitha Kannan

15:25–15:35 *Generating Accurate Electronic Health Assessment from Medical Graph*

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Jean-Baptiste Lamare, Oloruntobiloba Olatunji and Li Yao

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