4th Social Media Mining for Health Applications Workshop & Shared Task 2019

Florence, Italy 2 August 2019

ISBN: 978-1-5108-9113-5

Printed from e-media with permission by:

Curran Associates, Inc. 57 Morehouse Lane Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2019) by the Association for Computational Linguistics All rights reserved.

Printed by Curran Associates, Inc. (2019)

For permission requests, please contact the Association for Computational Linguistics at the address below.

Association for Computational Linguistics 209 N. Eighth Street Stroudsburg, Pennsylvania 18360

Phone: 1-570-476-8006 Fax: 1-570-476-0860

acl@aclweb.org

Additional copies of this publication are available from:

Curran Associates, Inc. 57 Morehouse Lane Red Hook, NY 12571 USA

Phone: 845-758-0400 Fax: 845-758-2633

Email: curran@proceedings.com Web: www.proceedings.com

Table of Contents

Extracting Kinship from Obituary to Enhance Electronic Health Records for Genetic Research Kai He, Jialun Wu, Xiaoyong Ma, Chong Zhang, Ming Huang, Chen Li and Lixia Yao
Lexical Normalization of User-Generated Medical Text Anne Dirkson, Suzan Verberne and Wessel Kraaij
Overview of the Fourth Social Media Mining for Health (SMM4H) Shared Tasks at ACL 2019 Davy Weissenbacher, Abeed Sarker, Arjun Magge, Ashlynn Daughton, Karen O'Connor, Michael J. Paul and Graciela Gonzalez-Hernandez
MedNorm: A Corpus and Embeddings for Cross-terminology Medical Concept Normalisation Maksim Belousov, William G. Dixon and Goran Nenadic
Passive Diagnosis Incorporating the PHQ-4 for Depression and Anxiety Fionn Delahunty, Robert Johansson and Mihael Arcan
HITSZ-ICRC: A Report for SMM4H Shared Task 2019-Automatic Classification and Extraction of Adverse Effect Mentions in Tweets Shuai Chen, Yuanhang Huang, Xiaowei Huang, Haoming Qin, Jun Yan and Buzhou Tang47
KFU NLP Team at SMM4H 2019 Tasks: Want to Extract Adverse Drugs Reactions from Tweets? BERT to The Rescue Zulfat Miftahutdinov, Ilseyar Alimova and Elena Tutubalina
Approaching SMM4H with Merged Models and Multi-task Learning Tilia Ellendorff, Lenz Furrer, Nicola Colic, Noëmi Aepli and Fabio Rinaldi
Identifying Adverse Drug Events Mentions in Tweets Using Attentive, Collocated, and Aggregated Medical Representation Xinyan Zhao, Deahan Yu and V.G.Vinod Vydiswaran
Correlating Twitter Language with Community-Level Health Outcomes Arno Schneuwly, Ralf Grubenmann, Séverine Rion Logean, Mark Cieliebak and Martin Jaggi71
Affective Behaviour Analysis of On-line User Interactions: Are On-line Support Groups More Therapeutic than Twitter? Giuliano Tortoreto, Evgeny Stepanov, Alessandra Cervone, Mateusz Dubiel and Giuseppe Riccardi 79
Transfer Learning for Health-related Twitter Data Anne Dirkson and Suzan Verberne
NLP@UNED at SMM4H 2019: Neural Networks Applied to Automatic Classifications of Adverse Effects Mentions in Tweets Javier Cortes-Tejada, Juan Martinez-Romo and Lourdes Araujo
Detecting and Extracting of Adverse Drug Reaction Mentioning Tweets with Multi-Head Self Attention Suyu Ge, Tao Qi, Chuhan Wu and Yongfeng Huang96
Deep Learning for Identification of Adverse Effect Mentions In Twitter Data Paul Barry and Ozlem Uzuner

Using Machine Learning and Deep Learning Methods to Find Mentions of Adverse Drug Reactions in Social Media Pilar López Úbeda, Manuel Carlos Díaz Galiano, Maite Martin and L. Alfonso Urena Lopez 102
Towards Text Processing Pipelines to Identify Adverse Drug Events-related Tweets: University of Michigan @ SMM4H 2019 Task 1 V.G.Vinod Vydiswaran, Grace Ganzel, Bryan Romas, Deahan Yu, Amy Austin, Neha Bhomia, Socheatha Chan, Stephanie Hall, Van Le, Aaron Miller, Olawunmi Oduyebo, Aulia Song, Radhika Sondhi, Danny Teng, Hao Tseng, Kim Vuong and Stephanie Zimmerman
Neural Network to Identify Personal Health Experience Mention in Tweets Using BioBERT Embeddings Shubham Gondane
Give It a Shot: Few-shot Learning to Normalize ADR Mentions in Social Media Posts Emmanouil Manousogiannis, Sepideh Mesbah, Alessandro Bozzon, Selene Baez and Robert Jan Sips
BIGODM System in the Social Media Mining for Health Applications Shared Task 2019 Chen-Kai Wang, Hong-Jie Dai and Bo-Hung Wang
Detection of Adverse Drug Reaction Mentions in Tweets Using ELMo Sarah Sarabadani
Adverse Drug Effect and Personalized Health Mentions, CLaC at SMM4H 2019, Tasks 1 and 4 Parsa Bagherzadeh, Nadia Sheikh and Sabine Bergler
MIDAS@SMM4H-2019: Identifying Adverse Drug Reactions and Personal Health Experience Mentions from Twitter Debanjan Mahata, Sarthak Anand, Haimin Zhang, Simra Shahid, Laiba Mehnaz, Yaman Kumar and Rajiv Ratn Shah
Detection of Adverse Drug Reaction in Tweets Using a Combination of Heterogeneous Word Embeddings Segun Taofeek Aroyehun and Alexander Gelbukh
Identification of Adverse Drug Reaction Mentions in Tweets – SMM4H Shared Task 2019 Samarth Rawal, Siddharth Rawal, Saadat Anwar and Chitta Baral