FinNLP 2020

The Second Workshop on Financial Technology and Natural Language Processing in conjunction with IJCAI-PRICAI 2020

Proceedings of the Workshop

January 5, 2021

Kyoto, Japan

Sponsor



Preface

It is our great pleasure to welcome you to the Second Workshop on Financial Technology and Natural Language Processing (FinNLP).

The aim of FinNLP is to provide a forum for international participants to share knowledge on applying NLP to the FinTech domain. With the sharing of the researchers in this workshop, we hope that the challenging problems of blending FinTech and NLP will be identified, the future research directions will be shaped, and the scope of this interdisciplinary research area will be broadened.

Due to a great trial of all of us, the COVID-19 virus, the IJCAI-PRICAI conference is postponed to January 2021. In order to accelerate the development of this field, we decide to publish the proceedings in advance. This year, the participants of FinNLP still bring several novel ideas to this forum. We also cooperate with Fortia Financial Solutions to hold two shared tasks in FinNLP, including learning semantic representations (FinSim) and sentence boundary detection in PDF noisy text (FinSBD-2).

We have many people to thank. Dialekti Valsmou Stanislawski and Ismail El Maarouf lead their teams to hold the successful shared tasks and help review several submissions. All of program committee members work very hard to provide their insightful comments to the submissions, and help us select the suitable papers for FinNLP-2020. Many thanks to all participants for submitting their interesting works and sharing their ideas. Besides, we would like to express our gratitude to the MOST Joint Research Center of AI Technology and All Vista Healthcare for financial support.

Chung-Chi Chen, Hen-Hsen Huang, Hiroya Takamura, Hsin-Hsi Chen FinNLP 2020 Organizers July 2020

Organizations

Organizers

Chung-Chi Chen, National Taiwan University Hen-Hsen Huang, National Chengchi University Hiroya Takamura, National Institute of Advanced Industrial Science and Technology Hsin-Hsi Chen, National Taiwan University

Shared Task Organizers

Willy Au Abderrahim Ait Azzi Bianca Chong Ismail El Maarouf Youness Mansar Virginie Mouilleron Dialekti Valsamou-Stanislawski

Program Committee

Paulo Alves, Universidade Católica Portuguesa Alexandra Balahur, European Commission's Joint Research Centre Paul Buitelaar, Insight Centre for Data Analytics at NUIG Damir Cavar, Indiana University Pablo Duboue, Textualization Software Ltd. Jinhua Du, American International Group, Inc. Ismail El Maarouf, Fortia Financial Solutions Sira Ferradans, Independent Researcher Kiyoshi Izumi, The University of Tokyo Changliang Li, Kingsoft Corporation Nedim Lipka, Adobe Inc. Hiroki Sakaji, The University of Tokyo Dialekti Valsamou-Stanislawski, Fortia Financial Solutions Chuan-Ju Wang, Academia Sinica Annie T.T. Ying, EquitySim Wlodek Zadrozny, University of North Carolina in Charlotte

Table of Contents

Financial News Annotation by Weakly-Supervised Hierarchical Multi-label Learning
Hang Jiang, Zhongchen Miao, Yuefeng Lin, Chenyu Wang, Mengjun Ni, Jian Gao, Jidong Lu and Guangwei Shi1
Variations in Word Usage for the Financial Domain
Syrielle Montariol, Alexandre Allauzen and Asanobu Kitamoto
Detecting Omissions of Risk Factors in Company Annual Reports
Corentin Masson and Syrielle Montariol15
A Semantic Approach to Financial Fundamentals
Jiafeng Chen and Suproteem Sarkar
Learning Company Embeddings from Annual Reports for Fine-grained Industry
Characterization
Tomoki Ito, Jose Camacho Collados, Hiroki Sakaji and Steven Schockaert
Unsupervised Discovery of Firm-Level Variables in Earnings Call Transcript Embeddings
Daniel Edmiston and Ziho Park
Using Extractive Lexicon-based Sentiment Analysis to Enhance Understanding of the
Impact of Non-GAAP Measures in Financial Reporting
Stacey Taylor and Vlado Keselj
FinSBD-2020: The 2nd Shared Task on Sentence Boundary Detection in Unstructured Text
in the Financial Domain
Willy Au, Bianca Chong, Abderrahim Ait Azzi and Dialekti Valsamou-Stanislawski
PublishInCovid19 at the FinSBD-2 Task: Sentence and List Extraction in Noisy PDF Text
Using a Hybrid Deep Learning and Rule-Based Approach
Janvijay Singh
aiai at the FinSBD-2 Task: Sentence, list and Item Boundary Detection and Items
classification of Financial Texts Using Data Augmentation and Attention
Ke Tian, Hua Chen and Jie Yang62
Daniel at the FinSBD-2 Task: Extracting List and Sentence Boundaries from PDF
Documents, a model-driven approach to PDF document analysis
Emmanuel Giguet and Gaël Lejeune
Subtl.ai at the FinSBD-2 task: Document Structure Identification by Paying Attention
Abhishek Arora, Aman Khullar, Sarath Chandra Pakala, Vishnu Ramesh and Manish Shrivastava
The FinSim 2020 Shared Task: Learning Semantic Representations for the Financial
Domain
Ismail El Maarouf, Youness Mansar, Virginie Mouilleron and Dialekti Valsamou-Stanislawski