### **Todor Mihaylov**

3639 Haven Ave, A414 94025, Menlo Park, CA, USA +1 650 374 6543 tbmihailov@gmail.com

**RESEARCH** Natural Language Processing, Deep Learning, Natural Language Understanding,

INTERESTS Reading Comprehension with External Knowledge, Question Answering

**EDUCATION** PhD Candidate in Computational Linguistics April 2016 - Sep 2019\*

Research Training Group AIPHES

Department of Computational Linguistics

Heidelberg University, Germany

MSc in Computer Science October 2013 - July 2015

Information Retrieval and Knowledge Discovery

Sofia University, Sofia, Bulgaria

Bachelor of Computer Science, September 2008 - May 2012

Computer Systems and Technologies

Technical University of Sofia, Sofia, Bulgaria

WORK Research Scientist Nov 2020 - Now

**EXPERIENCE** Facebook AI, Menlo Park, CA, USA

Doctoral Researcher April 2016 - Sep 2019

Department of Computational Linguistics Heidelberg University, Heidelberg, Germany

Conducting research in natural language processing as part of doctoral studies.

Research Intern April 2018 - June 2018

The Allen Institute for Artificial Intelligence, Seattle, WA, USA

Work on science question answering at the Aristo team.

Research Scientist Intern June 2017 - September 2017

Amazon AI, AWS Deep Learning, Palo Alto, CA, USA

Work on transfer learning for question answering.

Software Engineer October 2008 - March 2016

"Acstre" Software Development Group

Faculty of Applied Mathematics and Informatics

Technical University of Sofia

Developing web and server business applications.

PUBLICATIONS EXAMS: A Multi-subject High School Examinations Dataset

Nov 2020

for Cross-lingual and Multilingual Question Answering

Proceedings of the 2020 Conference on Empirical Methods in Natural Language Processing (EMNLP)

Momchil Hardalov, **Todor Mihaylov**, Dimitrina Zlatkova, Yoan Dinkov, Ivan Koychev, Preslav Nakov

Discourse-Aware Semantic Self-Attention

Nov 2019

for Narrative Reading Comprehension

Proceedings of the 2019 Conference on Empirical Methods in Natural Language Processing and 9th International Joint Conference on Natural Language Processing, EMNLP-IJCNLP 2019

Todor Mihaylov, Anette Frank

Can a Suit of Armor Conduct Electricity? A New Dataset

Oct 2018

for Open Book Question Answering

Proceedings of the 2018 Conference on Empirical Methods in Natural Language Processing, EMNLP 2018

Todor Mihaylov, Peter Clark, Tushar Khot, Ashish Sabharwal

Knowledgeable Reader: Enhancing Cloze-Style Reading Comprehension July 2018 with External Commonsense Knowledge

Proceedings of the 56th Annual Meeting of the Association for Computational Linguistics, ACL 2018

Todor Mihaylov, Anette Frank

What's Important in a Text? An Extensive Evaluation of

April 2018

Linguistic Annotations for Summarization

Proceedings of the Second International Workshop on Advances in Natural Language Processing, Valencia, Spanien.

Markus Zopf, Teresa Botschen, Tobias Falke, Ana Marasovic, **Todor Mihaylov**, Avinesh P.V.S, Eneldo Loza Menca, Johannes Frnkranz und Anette Frank

The Dark Side of News Community Forums:

March 2018

Opinion Manipulation Trolls

Internet Research, 2018

**Todor Mihaylov**, Tsvetomila Mihaylova, Preslav Nakov, Llus Mrquez, Georgi D. Georgiev, Ivan Koychev

Neural Skill Transfer from Supervised Language Tasks

November 2017

to Reading Comprehension

Workshop on Learning with Limited Labeled Data (LLD) at NIPS 2017

Todor Mihaylov, Zornitsa Kozareva, Anette Frank

Large-Scale Goodness Polarity Lexicons for Community

August 2017

Question Answering
In Proceedings of the 40th Internal

In Proceedings of the 40th International Conference on Research and Development in Information Retrieval (SIGIR) 2017

Todor Mihaylov, Daniel Balchev, Yasen Kiprov, Ivan Koychev, Preslav Nakov

Story Cloze Ending Selection Baselines and Data Examination April 2017 Proceedings of the Linking Models of Lexical, Sentential and Discourse-level Semantics Shared Task 2017

Todor Mihaylov, Anette Frank

AIPHES-HD system at TAC KBP 2016: Neural Event Trigger Span Detection and Event Type and Realis Disambiguation with Word Embeddings November 2016 Proceedings of the TAC Knowledge Base Population (KBP) 2016 **Todor Mihaylov**, Anette Frank

Discourse Relation Sense Classification Using Cross-argument Semantic Similarity Based on Word Embeddings August 2016

Proceedings of the Twentieth Conference on Computational Natural Language Learning - Shared Task, 2016

Todor Mihaylov, Anette Frank

Hunting for Troll Comments in News Community Forums August 2016

The 54th Annual Meeting of the Association for Computational Linguistics, ACL 2016

Todor Mihaylov, Preslav Nakov, Georgi D Georgiev

SemanticZ at SemEval-2016 Task 3: Ranking Relevant Answers

in Community Question Answering Using Semantic Similarity Based On Fine-tuned Word Embeddings

June 2016

International Workshop on Semantic Evaluation (SemEval) 2016

Todor Mihaylov, Preslav Nakov

 $SUper\ Team\ at\ SemEval-2016\ Task\ 3: Building\ a\ Hybrid\ System\ for\ Community\ Question\ Answering \\ June\ 2016$ 

International Workshop on Semantic Evaluation 2016

Tsvetomila Mihaylova, Pepa Gencheva, Martin Boyanov, Ivana Yovcheva

**Todor Mihaylov**, Momchil Hardalov, Yasen Kiprov, Daniel Balchev, Ivan Koychev, Preslav Nakov Ivelina Nikolova, Galia Angelova

Exposing Paid Opinion Manipulation Trolls September 2015 Recent Advantages in Natural Language Processing (RANLP) 2015 **Todor Mihaylov**, Ivan Koychev, Georgi D Georgiev, Preslav Nakov

Finding Opinion Manipulation Trolls in News Community Forums July 2015 The 19th Conference on Computational Natural Language Learning, CONLL 2015 **Todor Mihaylov**, Georgi D Georgiev, Preslav Nakov

SU-FMI: System Description for SemEval-2014 Task 9 on Sentiment August 2014 Analysis in Twitter, SemEval 2014

Boris Velichkov, Borislav Kapukaranov, Ivan Grozev, Jeni Karanesheva

Todor Mihaylov, Yasen Kiprov, Georgi Georgiev, Ivan Koychev, Preslav Nakov

#### REVIEWING Conferences: EMNLP 2016, ACL 2017, ACL 2018, NAACL-HLT 2019

Workshops: SemEval 2014, SemEval 2016, CONLL-ST 2016, LSDSem-ST 2017, Rep4NLP 2018, SSS 2019, Rep4NLP 2019, COIN 2019, EurNLP 2019

# TEACHING Teaching Assistant (Machine Learning, Information Retrieval) Oct 2014 - Feb 2016 EXPERIENCE Faculty of Mathematics and Informatics Sofia University

## **HONORS AND** 3rd in LDSem 2017 Shared Task on the Story Cloze Test Feb 2017 **AWARDS**

3rd best performing system in the official evaluation

1st in CoNLL-2016 Shared Task on Discourse Relation Sense Classification

May 2016

Best performing system in the overall evaluation for the Discourse Relation Sense Classification for English

3rd in SemEval-2016 Task 3: Community Question Answering Feb 2016 3rd place in Subtask A, English (Question-Comment Similarity) 3rd place in Subtask C, English (Question-External Comment Similarity) 1st place in Subtask C, English (Question-External Comment Similarity) (as a part of a team)

IIE's Summer Entrepreneurship Program (SEP) scholarship July 2014 International Institute of Education's Summer Entrepreneurship Program (SEP) scholarship part of the Bulgaria Young Leaders Program(BYLP) by the America for Bulgaria Foundation

Winner of BAIT Awards for 2013, Students awards January 2014 Annual Awards of Bulgarian Association of Information Technologies

WEBLOZ Students'12 winner in category Web Applications February 2012 Student software development competition

### **SKILLS**

**TECHNOLOGY** Machine learning and NLP tools: PyTorch, TensorFlow, AllenNLP, scikit-learn, gensim, NLTK, Libsvm/Liblinear, GATE

Programming Languages: Python, C#, Java

Other Technologies: Apache Lucene, Apache Solr, PostgreSQL

LANGUAGES Bulgarian: Native language

> English: Full professional proficiency German: Elementary proficiency

ADDITIONAL Personal page: https:tmihaylov.com

Google Scholar profile: https://scholar.google.de/citations?user=igempQwAAAAJ&

hl=en

Linkedin profile: https://www.linkedin.com/in/todormihaylov/

GitHub profile: https://github.com/tbmihailov

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