

Reyyan Yeniterzi, PhD

Assistant Professor
Sabancı University
Computer Science & Engineering
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Research Interests

Natural Language Processing, Deep Learning, Information Retrieval and Extraction, Text Mining, Expertise Retrieval, Search Engines, Social Media Analysis and Machine Translation

Education

- 08/2009-08/2015 **Doctor of Philosophy (PhD)**
Language Technologies Institute
School of Computer Science
Carnegie Mellon University, PA, USA
Dissertation: Effective Approaches to Retrieving and Using Expertise in Social Media
Advisor: Prof. Dr. Jamie Callan
Research Fellowship
- 08/2009-08/2012 **Master of Science (MSc)**
Language Technologies Institute
School of Computer Science
Carnegie Mellon University, PA, USA
Advisor: Prof. Dr. Jamie Callan
Research Fellowship and Women@IT Fellowship
- 09/2007-08/2009 **Master of Science (MSc)**
Computer Science and Engineering Program
Sabancı University, Istanbul, Turkey
Thesis: Syntax-to-morphology alignment and constituent reordering in factored phrase-based statistical machine translation from English to Turkish
Advisor: Prof. Dr. Kemal Oflazer
The Scientific and Technological Research Council of Turkey Scholarship
- 09/2002-06/2007 **Bachelor of Science (BSc)**
Computer Science and Engineering Program
Sabancı University, Istanbul, Turkey
Graduation Project: Developing an online multiplayer game to collect statistical data for word alignments from English–Turkish parallel sentences
Advisor: Prof. Dr. Kemal Oflazer
Sabancı University Sakıp Sabancı Honor Scholarship

Professional Experience

- 06/2019-Present **Assistant Professor**
Computer Science and Engineering
Faculty of Engineering and Natural Sciences
Sabancı University, Istanbul, Turkey

08/2019-Present **Scientific Advisor for Machine Learning and NLP**
Buck.ai, San Francisco, USA

04/2019-Present **NLP Research Consultant**
Trendyol Group, İstanbul, Turkey

02/2020-07/2020 **Research Consultant for Yaani Search Engine**
Turkcell, Istanbul, Turkey

12/2019-06/2020 **NLP Research Consultant**
Ageas Group, Lisbon, Portugal

01/2018-07/2019 **NLP Research Consultant**
Türk Telekom, İstanbul, Turkey

09/2015-05/2019 **Assistant Professor**
Computer Science Department
Faculty of Engineering
Özyeğin University, Istanbul, Turkey

08/2009-08/2015 **Research Assistant**
Language Technologies Institute
School of Computer Science
Carnegie Mellon University, PA, USA
Supervisor: Prof. Dr. Jamie Callan

03/2009-05/2009 **Visiting Researcher**
Computer Science Department
Carnegie Mellon University, Doha, Qatar
Supervisor: Prof. Dr. Kemal Oflazer

06/2008-09/2008 **Visiting Researcher**
Health Information Privacy Laboratory
Vanderbilt University, TN, USA
Supervisor: Prof. Dr. Bradley Malin

06/2007-09/2007 **Software Engineering Intern**
Google Headquarters, CA, USA
Supervisor: Natasha Mohanty, Software Engineer at Google News Team

06/2006-09/2006 **Research Intern**
International Computer Science Institute (ICSI), CA, USA
Supervisor: Dilek Hakkani Tur, Senior Researcher at ICSI

06/2005-09/2005 **Research Intern**
Sabancı University, Istanbul, Turkey
Supervisor: Prof. Dr. Uğur Sezerman

06/2005-09/2005 **Intern**
Microsoft Summer School, Istanbul, Turkey

Publications

- Ali Eren Ak, Çağhan Köksal, Kenan Fayoumi and **Reyyan Yeniterzi**. "SU-NLP at TREC NEWS 2020". *Proceedings of the 29th Text REtrieval Conference (TREC)*, Gaithersburgh, MD, 2020. (Proposed system ranked #1 in the wikification task)
- Huda Barakat, **Reyyan Yeniterzi** and Luis Martín-Domingo, "Applying Deep Learning Models to Twitter Data to Detect Airport Service Quality", *Journal of Air Transport Management*, 2021; Volume 91.
- Kenan Fayoumi and **Reyyan Yeniterzi**, "SU-NLP at WNUT-2020 Task 2: The Ensemble Models", *Proceedings of the Sixth Workshop on Noisy User Generated Text (W-NUT)*, 2020.
- Anıl Özdemir and **Reyyan Yeniterzi**. "SU-NLP at SemEval-2020 Task 12: Offensive Language Identification in Turkish Tweets". *International Workshop on Semantic Evaluation (SemEval)*, 2020. (Accepted) (Proposed system ranked #2 in the shared task)
- Faik Kerem Örs, Süveyda Yeniterzi and **Reyyan Yeniterzi**. "Event Clustering within News Articles", *Proceedings of the Automated Extraction of Socio-Political Events from News (AESPEN) Workshop as part of the Language Resources and Evaluation Conference (LREC)*, 2020. (Proposed system ranked #1 in the shared task)
- Elif Pınar Ön and **Reyyan Yeniterzi**. "Cyberbullying Detection using Deep Learning and Word Embedding Analysis" *Proceedings of the 28th Signal Processing and Communications Applications Conference (SIU)*. IEEE, 2020.
- Ali Osman Berk Şapçı, Öznur Taştan and **Reyyan Yeniterzi**. "Active Learning for Turkish Text Classification", *Proceedings of the 28th Signal Processing and Communications Applications Conference (SIU)*. IEEE, 2020.
- Ethem Utku Aktaş, **Reyyan Yeniterzi** and Cemal Yılmaz. "Turkish Issue Report Classification in Banking Domain", *Proceedings of the 28th Signal Processing and Communications Applications Conference (SIU)*. IEEE, 2020.
- Kenan Fayoumi and **Reyyan Yeniterzi**. "OzU-NLP at TREC News 2019: Entity Ranking". *Proceedings of the 28th Text REtrieval Conference (TREC 2019)*, Gaithersburgh, MD, 2019. (Proposed system ranked #1 in the challenge)
- Mehmet Uluç Şahin, Eren Balatkan, Cihan Eran, Engin Zeydan and **Reyyan Yeniterzi**. "MedSpecSearch: Medical Specialty Search", *Proceedings of the ECIR 2019 European Conference on Information Retrieval*, Cologne, Germany. 2019.
- Melih Kandemir, Taygun Kekeç and **Reyyan Yeniterzi**. "Supervising Topic Models with Gaussian Processes", *Pattern Recognition* 77:226-236, 2018.
- **Reyyan Yeniterzi**, Gökhan Tür and Kemal Oflazer. "Turkish Named Entity Recognition", in *Studies in Turkish Language Processing*, Springer Verlag – Theory and Applications of Natural Language Processing Book Series, 115-132. 2018.
- Kemal Oflazer, **Reyyan Yeniterzi** and Ilknur Durgar El-Kahlout. "Statistical Machine Translation and Turkish", in *Studies in Turkish Language Processing*, Springer Verlag – Theory and Applications of Natural Language Processing Book Series, 207-236. 2018.
- **Reyyan Yeniterzi**. "Effective and Efficient Approaches to Retrieving and Using Expertise in Social Media". *ACM SIGIR Forum*, 49(2), 2016.
- **Reyyan Yeniterzi** and Jamie Callan. "Moving from Static to Dynamic Modelling of Expertise for Question Routing in CQA Sites". *Proceedings of the 9th International AAAI Conference on Web and Social Media (ICWSM 2015)*, Oxford, UK, 2015.

- **Reyyan Yeniterzi** and Jamie Callan. "Constructing Effective and Efficient Topic-Specific Authority Networks for Expert Finding in Social Media". *Proceedings of the SIGIR 2014 International Workshop on Social Media Retrieval and Analysis*, Gold Coast, Australia. 2014.
- **Reyyan Yeniterzi** and Jamie Callan. "Analysing Bias in CQA-based Expert Finding Test Sets". *Proceedings of the 37th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, Gold Coast, Australia. 2014.
- **Reyyan Yeniterzi**, "Effective Approaches to Retrieving and Using Expertise in Social Media". *Proceedings of the 36th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, Dublin, Ireland. 2013.
- Yubin Kim, **Reyyan Yeniterzi** and Jamie Callan. "Overcoming Vocabulary Limitations in Microblogs". *Proceedings of the 21st Text REtrieval Conference (TREC 2012)*, Gaithersburgh, MD, 2012.
- Derry Tanti Wijaya and **Reyyan Yeniterzi**. "Understanding Semantic Change of Words Over Centuries". *Proceedings of the 20th ACM Conference on Information and Knowledge Management (CIKM 2011) Workshop on DETecting and Exploiting Cultural diversiTy on the Social Web (DETECT 2011)*, Glasgow, UK, 2011.
- **Reyyan Yeniterzi**. "Exploiting Morphology in Turkish Named Entity Recognition System". *Proceedings of the 49th Annual Meeting of the Association for Computational Linguistics - Student Session (ACL)*, Portland, Oregon, 2011.
- John Aberdeen, Samuel Bayer, **Reyyan Yeniterzi**, Ben Wellner, Cheryl Clark, David Hanauer, Bradley Malin and Lynette Hirschman. "The MITRE Identification Scrubber Toolkit: Design, Training, Assessment". *International Journal of Medical Informatics*, 79(12): 849-859, 2010.
- **Reyyan Yeniterzi** and Kemal Oflazer. "Syntax-to-Morphology Mapping in Factored Phrase-Based Statistical Machine Translation from English to Turkish". *Proceedings of the 48th Annual Meeting of the Association for Computational Linguistics (ACL)*, Uppsala, Sweden, 2010.
- **Reyyan Yeniterzi**, John Aberdeen, Samuel Bayer, Lynette Hirschman, Ben Wellner and Bradley Malin. "Effects of Personal Identifier Resynthesis on Clinical Text De-identification". *Journal of the American Medical Informatics Association*, 17: 159-168, 2010.
- Esra Erdem and **Reyyan Yeniterzi**. "Transforming Controlled Natural Language Biomedical Queries into Answer Set Programs". *Proceedings of the BioNLP 2009 Workshop at the Annual Meeting of the Association for Computational Linguistics (ACL)*, 2009.
- Süveyda Yeniterzi, **Reyyan Yeniterzi**, Alper Küçükural, Nilay Noyan and Uğur Sezerman. "A New Approach to Measure the Similarities of Protein Structures Using Network Properties". *Proceedings of the 3rd International Symposium on Health Informatics and Bioinformatics (HIBIT)*, Istanbul, Turkey, 2008.
- Alper Küçükural, **Reyyan Yeniterzi**, Süveyda Yeniterzi and Uğur Sezerman. "Evolutionary Selection of Minimum Number of Features for Classification of Gene Expression Data Using Genetic Algorithms". *Proceedings of the 9th Annual Conference on Genetic and Evolutionary Computation (GECCO)*, London, England, 2007.
- Süveyda Yeniterzi, **Reyyan Yeniterzi**, Alper Küçükural and Uğur Sezerman. "Feature Selection with Genetic Algorithms on Medical Data". *Proceedings of the 2nd International Symposium on Health Informatics and Bioinformatics (HIBIT)*, Antalya, Turkey, 2007.

Invited Presentations

- 25/09/2020 **Recent Breakthroughs in NLP**
Fourth VERIM Data Science Summer School, Istanbul, Turkey
- 08/09/2019 **Neural Language Models**
Third VERIM Data Science Summer School, Istanbul, Turkey
- 04/05/2019 **Deep Learning and Recent Developments in NLP**
Second Complex Systems and Data Science Workshop, Istanbul, Turkey
- 22/11/2018 **Büyük Verinin Zekası Platformu**
Bilişim Zirvesi 2018, Istanbul, Turkey
- 05/07/2018 **From Big Data to Information Through Text Mining and NLP**
Boğaz' da Yapay Öğrenme Yaz Okulu, Istanbul, Turkey
- 25/06/2018 **Initial Explorations for Patient Routing**
Social Media and Health Workshop at the International Conference on Web and Social Media (ICWSM 2018), Palo Alto, CA, USA
- 26/05/2018 **You don't have enough data for learning? Lets see what we can do: A case study on health domain**
First Complex Systems and Data Science Workshop, Istanbul, Turkey

Research Grants

- 2020-... **Information and Relation Extraction in Turkish News Articles**
SU Integration Projects
Principal Investigator
- 2020-... **A Deep Learning based Hate Speech Detection System: A Comparative Analysis of Turkey and Tunisia**
TUBITAK 2510 Turkey-Tunisia Bilateral Cooperation Program
Researcher
- 2012-2014 **Effective and Efficient Approaches to Retrieving and Using Expertise in Social Media**
Carnegie Mellon University & Singapore National Research Foundation
Graduate Research Assistant
- 2013-2014 **Selective Search of Large Scale Text Collections**
National Science Foundation (NSF)
Graduate Research Assistant
- 2009-2012 **Finding Local Expertise from Social Networks**
Center for the Future of Work (iLab, Heinz School)
Graduate Research Assistant

Teaching Activities

- Instructor of the following courses at Sabancı University and Data Analytics
 - Machine Learning (Spring 2020)
 - Natural Language Processing (Fall 2020)
 - Deep Natural Language Processing (Fall 2019/2020)

- Instructor of the following courses at Özyeğin University, Turkcell Akademi and Vestel
 - Advanced Natural Language Processing (Spring 2019)
 - Deep Natural Language Processing (Fall 2018)
 - Introduction to Natural Language Processing (Fall 2017 & Spring 2018 & Summer 2018)
 - Information Retrieval and Search Engines (Fall 2016 & Spring 2018)
 - Object Oriented Programming (Fall 2016/2017 & Spring 2016/2017)
 - Data Structures and Algorithms Course (Fall 2015 & Spring 2017)
- Teaching Assistant of the following courses at Carnegie Mellon University
 - Information Retrieval (Spring 2011/2012)
- Teaching Assistant of the following courses at Sabancı University
 - Introduction to Programming (Fall 2006/2007/2008)
 - Advanced Programming (Spring 2006/2007/2009)

Fellowships and Awards

03/2018	Marie Skłodowska-Curie Actions Seal of Excellence European Commission
08/2012	Honourable Mention Award at The LTI Student Research Symposium Carnegie Mellon University, PA, USA
09/2009 – 08/2015	Research Fellowship through PhD studies Carnegie Mellon University, PA, USA
09/2009 – 09/2010	Barbara Lazarus Women@IT Fellowship Carnegie Mellon University, PA, USA
09/2007 - 06/2009	TUBITAK Scholarship through graduate education The Scientific and Technological Research Council of Turkey, Turkey
09/2003 - 06/2009	Sabancı University Scholarship Sabancı University, Istanbul, Turkey

Professional Activities

Program Committee:

- 2016 International ACM SIGIR Conference on Research and Development in Information Retrieval
- 2016 European Conference on Artificial Intelligence (ECAI)
- 2018 International Joint Conference on Artificial Intelligence and European Conference on Artificial Intelligence (IJCAI-ECAI-2018)
- 2019 AAAI Conference on Artificial Intelligence (AAAI)
- 2019 International Joint Conference on Artificial Intelligence (IJCAI)
- 2019 Annual Meeting of the Association for Computational Linguistics (ACL)
- 2020 AAAI Conference on Artificial Intelligence (AAAI)
- 2020 Conference on Empirical Methods in Natural Language Processing (EMNLP)

References

Available upon request.