

Hadi Amiri

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Education

Research Associate , Department of Biomedical Informatics, Harvard Medical School Project: Machine Learning for AI diagnosis Supervisor: Isaac S. Kohane	2018-present
Postdoctoral Research Fellow , Boston Children's Hospital, Harvard Medical School Projects: Semantic processing of EMR and health-related forum texts Supervisors: Elissa Weitzman, Guergana Savova	2016-2018
Postdoctoral Research Associate , University of Maryland, College Park Projects: Prominence prediction in scientific literature and churn prediction in social media Supervisors: Philip Resnik, Hal Daumé III	2014-2016
Ph.D. Department of Computer Science, National University of Singapore Thesis: Making sense of microposts for organizations: live event and user community detection Advisor: Tat-Seng Chua, GPA: 4.19/5.00 Committee: Jimmy Huang (York University); Teck Khim Ng, Anindya Datta, Lee Mong Li (NUS)	2009-2013
M.Eng. Department of Electrical and Computer Engineering, University of Tehran Thesis: Distributed information retrieval on the web Advisors: Farhad Oroumchian, Masoud Rahgozar, GPA: 4.51/5.00	2005-2008

Honors and Awards

NUS Graduate School for Integrative Sciences and Engineering (NGS) scholarship	2009-2013
Iran Telecommunication Research Center (ITRC) grant	June 2007
Rank 33 rd in national graduate exam among more than 11K applicants	April 2005
Rank 978 th in national undergraduate exam among more than 400K applicants	April 2000

Research Interests

Natural Language Processing: sentiment and semantics, applications to biomedical informatics and business intelligence
Social Media Computing: event detection and tracking, influential user mining, and link prediction
Machine Learning: semi-supervised and unsupervised learning

Research Experience

Research Scientist, Institute for Infocomm Research, Singapore Achievement: Systems for brand community detection and name disambiguation in social media Supervisors: Shonali Krishnaswamy and Sinno Jialin Pan.	Feb 2013-Feb 2014
Research Assistant, University of Tehran Achievement: An advanced information retrieval system for digital libraries; Multilingual text retrieval systems ranked 2 nd and 5 th in persian@CLEF; Test collections for Persian retrieval and POS tagging: Hamshahri and Bijankhan Supervisors: Farhad Oroumchian, Masoud Rahgozar.	Aug 2007-June 2008, Aug 2008-Dec 2008
Research Intern, National University of Singapore Achievement: An automatic information extraction and ontology construction system for Web forums Supervisor: Tat-Seng Chua.	Jun 2008-Aug 2008

Teaching Experience

Teaching Social Media Computing, University of Maryland, USA Web: http://www.umiacs.umd.edu/~hadi/cmssc498j/	2016 (Sem II); 2015 (Sem II)
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- Mentorship** I have mentored undergraduate and graduate students on their research works and course projects in natural language processing, information retrieval, and social media analysis (see publications).
- Teaching** Information Retrieval (NUS, Singapore) (UT, Iran), Natural Language Processing (UT, Iran), Advanced Database Systems, (UT, Iran), Algorithm Design (Iran).
- Assistantship**
- Guest Lectures** Northeastern University (CS7180). Context-sensitive Autoencoders, Host: Byron Wallace 2016 (Sem II)
 NUS (CS3245). Advanced Top-k Document Retrieval, Host: Min-Yen Kan 2011 (Sem II)
 UT (ECE573). Language Modeling for Document Retrieval, Host: Farhad Oroumchian 2007-8 (Sem II)
 UT (ECE502). POS Tagging of Persian Text. Host: Farhad Oroumchian 2006 (Sem I)

Professional Services

Program Committee

- Association for the Advancement of Artificial Intelligence AAI'16,17,18,19
- Neural Information Processing Systems NIPS'18,19
- Special Interest Group on Information Retrieval SIGIR'18,19
- Association for Computational Linguistics ACL'17, 19
- American Medical Informatics Association AMIA'18,19
- International Conference on Machine Learning ICML'19
- North American Chapter of the Association for Computational Linguistics NAACL'19
- Language Resources and Evaluation LREC'18
- Empirical Methods in Natural Language Processing EMNLP'15,16,17
- European Chapter of the Association for Computational Linguistics EACL'16
- International Joint Conference on Natural Language Processing IJCNLP'13
- Recent Advances in Natural Language Processing RANLP'13
- Asia Information Retrieval Societies Conference AIRS'11

Journal Review Service

- Journal of Natural Language Engineering
- IEEE Transactions on Knowledge and Data Engineering
- Information Processing and Management
- Journal of Data and Information Quality

Selected Publications

Peer-reviewed Conference Papers

- **Hadi Amiri**. 2019. Neural Self-Training through Spaced Repetition. In Proceedings of the 2019 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (NAACL'19). Minneapolis, MN, USA.
- **Hadi Amiri**, Mitra Mohtarami. 2019. Vector of Locally Aggregated Embeddings for Text Representation. In Proceedings of the 2019 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (NAACL'19). Minneapolis, MN, USA.
- Hassan Hajipoor, **Hadi Amiri**, Maseud Rahgozar, Farhad Oroumchian. 2019. Serial Recall Effects in Neural Language Modeling. In Proceedings of the 2019 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (NAACL'19). Minneapolis, MN, USA.
- **Hadi Amiri**, Kara Magane, Lauren Wisk, Guergana Savova, Elissa Weitzman. 2018. Toward Large-scale and Multi-facet Analysis of First-person Alcohol Drinking. In American Medical Informatics Association (AMIA'18). San Francisco, CA, USA.
- **Hadi Amiri**, Timothy Miller, Guergana Savova. 2018. Spotting Spurious Data with Neural Networks. In Proceedings of the 2018 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (NAACL'18). New Orleans, LA, USA.
- **Hadi Amiri**, Timothy Miller, Guergana Savova. 2017. Repeat before Forgetting: Spaced Repetition for Efficient and Effective Training of Neural Networks. In Proceedings of the 2017 Conference on Empirical Methods in Natural Language Processing (EMNLP'17). Copenhagen, Denmark.

- **Hadi Amiri**, Philip Resnik, Jordan Boyd-Graber, and Hal Daumé III. 2016. Learning Text Pair Similarity with Context-sensitive Autoencoders. In Proceedings of the 54th Annual Meeting of the Association for Computational Linguistics (ACL'16). Berlin, Germany.
- **Hadi Amiri** and Hall Daumé III. 2016. Short Text Representation for Detecting Churn in Microblogs. In Proceedings of the 30th AAAI Conference on Artificial Intelligence (AAAI'16). Phoenix, AZ, USA.
- **Hadi Amiri** and Hall Daumé III. 2015. Target-dependent Churn Classification in Microblogs. In Proceedings of the 29th AAAI Conference on Artificial Intelligence (AAAI'15). Austin, TA, USA.
- Chen Yan, **Hadi Amiri**, Zhojun Li, Tat-Seng Chua. 2013. Emerging Topic Detection for Organizations from Social Media. In Proceedings of the 36th international ACM SIGIR conference (SIGIR'13). Dublin, Ireland.
- **Hadi Amiri**, Zheng-Jun Zha, Tat-Seng Chua. 2013. A Pattern Matching Based Model for Implicit Opinion Question Identification. In Proceedings of 27th AAAI Conference on Artificial Intelligence (AAAI'13). Bellevue, WA, USA.
- **Hadi Amiri**, Tat-Seng Chua. 2012. Mining Sentiment Terminology through Time. In Proceedings of the 21st ACM international conference on Information and knowledge management (CIKM'12). Maui, Hawaii, USA.
- **Hadi Amiri**, Tat-Seng Chua. 2012. Mining Slang and Urban Opinion Words and Phrases from cQA Services: An Optimization Approach. In Proceedings of the 5th ACM international conference on Web search and data mining (WSDM'12). Seattle, WA, USA.
- Mitra Mohtarami, **Hadi Amiri**, Man Lan, Thanh P. Tran, Chew Lim Tan. 2012. Sense Sentiment Similarity: An Analysis. In Proceedings of the 26th AAAI Conference on Artificial Intelligence (AAAI'12). Toronto, Canada.
- Mitra Mohtarami, **Hadi Amiri**, Man Lan, Chew Lim Tan. 2011. Predicting the Uncertainty of Sentiment Adjectives in Indirect Answers. Proceedings of the 20th ACM international conference on Information and knowledge management. (CIKM'11). Glasgow, Scotland, UK.

Journal Papers and Book Chapters

- Abolfazl AleAhmad, **Hadi Amiri**, Ehsan Darrudi, Masoud Rahgozar, Farhad Oroumchian. 2009. Hamshahri: A Standard Persian Text Collection. Knowl.-Based Syst. 22(5): 382-387.
- R. Karimpour, A. Ghorbani, A. Pishdad, M. Mohtarami, A. AleAhmad, **Hadi Amiri**, F. Oroumchian. 2009. Improving Persian IR Systems Using Stemming and Part of Speech Tagging. In Evaluating Systems for Multilingual and Multimodal Information Access. Springer Berlin Heidelberg.
- Zahra Aghazade, N. Deghani, L. Farzinvash, R. Rahimi, A. AleAhmad, **Hadi Amiri**, F. Oroumchian. 2009. Fusion of Retrieval Models at CLEF 2008 Ad Hoc Persian Track. In Evaluating Systems for Multilingual and Multimodal Information Access. Springer Berlin Heidelberg.

Peer-reviewed Workshop Papers

- **Hadi Amiri**, Timothy Miller, Guergana Savova. 2018. Spaced Repetition for Training Artificial Neural Networks. National Aeronautics and Space Administration (NASA) Goddard Workshop on Artificial Intelligence. MD, USA.
- Chen Lin, Timothy Miller, Dmitriy Dligach, **Hadi Amiri**, Steven Bethard, Guergana Savova. 2018. Self-training Improves Recurrent Neural Networks Performance for Temporal Relation Extraction. Health Text Mining and Information Analysis Workshop (LOUHI'18), EMNLP'18. Brussels, Belgium.
- Chen Lin, Timothy Miller, **Hadi Amiri**, David Harris, Samuel Rubinstein, Jeremy Warner, Guergana Savova. 2018. Classification of Electronic Medical Records of Breast Cancer and Melanoma Patients to Clinical Episodes. Artificial Intelligence, Big Data and Prediction in Cancer Workshop. American Association for Cancer Research. RI, USA.
- Timothy Miller, Steven Bethard, **Hadi Amiri**, Guergana Savova. 2017. Unsupervised Domain Adaptation for Clinical Negation Detection. BioNLP Workshop, ACL'17. Vancouver, Canada.
- Meir Friedenber, **Hadi Amiri**, Hal Daumé III, Philip Resnik. 2016. Text Representation for Predicting Triage of Forum Posts about Mental Health. CLPsych workshop. In Proceedings of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (NAACL'16), San Diego, USA.

- **Hadi Amiri**, Abolfazl AleAhmad, Farhad Oroumchian, Masoud Rahgozar. 2008. Keyword Suggestion Using Concept Graph Construction from Wikipedia Rich Documents. ESAIR workshop. In Proceedings of the European Conference on Information Retrieval (ECIR'08). Glasgow, UK.
- Abolfazl AleAhmad, **Hadi Amiri**, Masoud Rahgozar, Farhad Oroumchian. 2008. Experiments with English-Persian Text Retrieval. The 2nd ACM workshop on Improving Non English Web Searching, iNEWS'08. In Proceedings of the 17th ACM international conference on Information and knowledge management (CIKM'08). Napa, CA, USA.
- **Hadi Amiri**, Abolfazl AleAhmad, Farhad Oroumchian, Caro Lucas, Masoud Rahgozar. 2007. Using OWA Fuzzy Operator to Merge Retrieval System Results. CAASL workshop. Stanford University, CA, USA.

Patents

- Tat-Seng Chua, **Hadi Amiri**, Chen Yan, Anqi Cai. 2015. Micropost Brand Monitoring. WO Patent Number PCT/SG2014/000,508.