Hamidreza Ghader

+31 (6) 18 354 615
[MY_NAME][DOT][FAMILY_NAME]@gmail.com
https://hamidreza-ghader.github.io/

Research Interest

Natural Language Processing, Statistical Machine Translation (Neural and Phrase-based), Deep Neural Networks and Machine Learning.

Education

2014 – 2020 **Ph.D. Computer Science**, *University of Amsterdam*, Amsterdam.
Thesis: An Empirical Analysis of Phrase-based and Neural Machine Translation
Supervisors: Christof Monz and Maarten de Rijke

2009 – 2012 **M.Sc. Artificial Intelligence**, *Iran University of Science and Technologies*, Tehran.
Thesis: A Bayesian Model of Cognition for Grammar Induction from Natural Language Corpora
Supervisors: Morteza Analoui and Heshaam Faili

2003 – 2009 **B.Sc. Software Engineering**, *University of Tehran*, Tehran.

Technical Experience

2025 – **Self-employed**, Amsterdam.
Working on my startup idea of developing a conversational product discovery for e-commerce platforms

2019 – 2025 **Lead NLP and Machine Learning Engineer**, *Tech Team*, Contexta360, Amsterdam.
As a Machine Learning Engineer, I led the end-to-end research, development, and deployment of NLP solutions, including topic detection, text classification, sentiment analysis, information extraction, summarization, conversational AI, and intent classification, built on the transcriptions produced by our in-house speech-to-text engine. I designed, trained, and fine-tuned deep-learning models to deliver robust, high-performance results across these tasks.

2018 **Research Intern**, *AIP*, RIKEN (National Research Institute of Japan), Tokyo.
I worked on Wikipedia classification and on building knowledge graphs for low-resource languages using graph convolutional neural networks.

2016 – 2018 **Development of a Machine Translation System**, *ILPS Group*, University of Amsterdam, Amsterdam.
A phrase-based machine translation system was developed as part of REMEDI (Robust and Efficient Machine Translation in a Distributed Infrastructure) project.

2014
2018

Research Assistant, *ILPS Group*, University of Amsterdam.

Contributed to the development of multiple in-house machine translation systems, including both phrase-based and neural approaches. Responsibilities included code development, data preprocessing, running experiments, and documenting the systems. Implemented, trained, and evaluated recurrent neural network models and transformer-based models for machine translation.

2013
2014

Senior Software Developer, *Nomatec Co.*, Tehran, Iran.

During my time at the company, I enhanced their internal search engine by adding spell-checking and correction capabilities and improving its ability to handle spelling variations. I also optimized the system's similarity-search component to detect related terms more effectively, rank results more accurately, and expand its coverage of relevant variations.

2011
2013

Research Assistant and Software Engineer, *Natural Language Processing Lab*, University of Tehran, Iran.

Contributed to the development, refinement, and deployment of a production-grade phrase-based machine translation system.

Publications

- Hamidreza Ghader, 2020. "An Empirical Analysis of Phrase-based and Neural Machine Translation", *PhD Dissertation, University of Amsterdam*, Amsterdam, the Netherlands.
- Hamidreza Ghader and Christof Monz, 2019. "An Intrinsic Evaluation of Neural Machine Translation Architectures", *In Proceedings of 17th Machine Translation Summit (MTSummit XVII)*, Dublin, Ireland.
- Hamidreza Ghader and Christof Monz, 2017. "What does Attention in Neural Machine Translation Pay Attention to?", *In Proceedings of the 8th International Joint Conference on Natural Language Processing (IJCNLP2017)*, Taipei, Taiwan.
- Hamidreza Ghader and Christof Monz, 2016. "Which Words Matter in Defining Phrase Reorderings in Statistical Machine Translation?", *In Proceedings of the 12th Conference of the Association for Machine Translation in the Americas (AMTA2016)*, Austin, US.
- Marzieh Fadaee, Hamidreza Ghader, Heshaam Feili, Azadeh Shakery, 2013. "Automatic WordNet Construction Using Markov Chain Monte Carlo", *In Proceedings of the14th International Conference on Intelligent Text Processing and Computational Linguistic (CICLING)*, Samos, Greece.

Community Service

Organizational	Organizer and Chair of Weekly Seminars of ILPS Group, 2017
Reviewing	ICLR2022, ACL-IJCNLP2021, EMNLP2020, COLING2018, WMT2017, CSICC2016, CSICC2015
Campaigns	Team member and Co-developer of Machine Translation Systems of the Team of University of Amsterdam for NIST Open MT Evaluation, 2015
Summer Schools	Machine Translation Marathon, 2014, Trento, Italy

Teaching

2015
2018

Teaching Assistant, *University of Amsterdam*.

Deep Learning for Natural Language Technology, Masters Course for Artificial Intelligence, 2018
Machine Learning Course, Bachelor Course for Artificial Intelligence, 2017
Machine Learning Course, Bachelor Course for Artificial Intelligence, 2016
Machine Learning Course, Bachelor Course for Artificial Intelligence, 2015

2010
2011

Teaching Assistant, *Iran University of Science and Technology*.

Statistical Pattern Recognition Course, M.Sc. Course for Artificial Intelligence, 2011
Statistical Pattern Recognition Course, M.Sc. Course for Artificial Intelligence, 2010

2011

Teaching Assistant, *University of Tehran*.

Natural Language Processing Course, M.Sc. Course for Artificial Intelligence, 2011

2006

Teaching Assistant, *University of Tehran*.

Database Laboratory Course, Bachelor Course for Software Engineering, 2006