Marzieh Fadaee

Science Park 608
1098, Amsterdam
North Holland

email: marzieh.f@gmail.com
URL: marziehf.github.io

Current position

2019 - present *NLP/ML Research Engineer*, Zeta Alpha Vector

Working on designing and implementing an NLU-Powered Tool to explore knowledge and information in large amount of data.

Areas of Expertise

Machine Learning • Machine Translation • Natural Language Understanding • Distributional Semantics • Question Answering • Summarization • Named Entity Recognition • Word Sense Disambiguation • Information Extraction

Publications

2020 Marzieh Fadaee, Christof Monz. **The Unreasonable Volatility of Neural Machine Translation Models**, *Workshop on Neural Generation and Translation (WNGT) at ACL. Seattle, USA*

2018 Marzieh Fadaee, Christof Monz. **Back-Translation Sampling by Targeting Difficult Words in Neural Machine Translation**, *Conference on Empirical Methods in Natural Language Processing (EMNLP). Brussels, Belgium*

2018 Marzieh Fadaee, Arianna Bisazza, Christof Monz. **Examining the Tip of the Iceberg: A Data Set for Idiom Translation**, *International Conference on Language Resources and Evaluation (LREC). Miyazaki, Japan*

2017 Marzieh Fadaee, Arianna Bisazza, Christof Monz. **Data Augmentation for Low-Resource Neural Machine Translation**, *Association for Computational Linguistics (ACL). Vancouver, Canada*

2017 Marzieh Fadaee, Arianna Bisazza, Christof Monz. **Learning Topic-Sensitive Word Representations**, *Association for Computational Linguistics (ACL). Vancouver, Canada*

2013 Marzieh Fadaee, Hamidreza Ghader, Hesham Faili, Azadeh Shakery. **Automatic WordNet Construction Using Markov Chain Monte Carlo**, *International Conference on Intelligent Text Processing and Computational Linguistics (CICLING), Samos, Greece.*

Education

2014-2019 **PhD** in Artificial Intelligence, University of Amsterdam
Worked in Information and Language Processing Systems (ILPS) group on developing models to

understand interesting phenomena of the natural language. My research includes exploiting paraphrase relations for improved translation modeling, adapting the embedding space to capture the ambiguity nature of the language using topics, translation of infrequent words with neural systems, and idiom translation.

2010-2013 **MSc** in Computer Engineering, University of Tehran

2004-2009 **BSc** in Computer Engineering, Sharif University of Technology

Experience

2018 **Research Scientist Intern**, Ebay CoreAI
Worked on transfer learning by integrating universal contextualized embeddings for inter-domain and cross-lingual challenges.

2014-2019 **Research Assistant**, University of Amsterdam
Duties include modeling and implementation of modules of an in-house translation system, data preprocessing, running and analysis of experiments.

2013-2014 **Researcher and Developer**, Faraazin Translation Project
Worked on developing a Persian↔English translation system.

2010-2013 **Research Assistant**, University of Tehran
Worked in NLP Lab and IIS Lab on constructing a Semantic Network for the Persian language and improving retrieval results in Query Expansion and Cross-Lingual IR.

2007-2009 **Software Developer**, Iran Info-Tech Development Co.

Technical skills

Programming languages

Proficient in Java, Python, Perl, C#, and R
Familiar with C/C++, SQL, HTML, PHP

NLP packages

Moses, SRiLM, Phrasal, word2vec, Stanford CoreNLP, ELMo, BERT, OpenNMT

Machine learning

Hands-on experience with supervised (classification/regression algorithms) and unsupervised (clustering, language modeling) techniques. Experience scikit-learn. Deep learning using Torch and PyTorch on GPUs. Probabilistic models.

Teaching & supervision

2019-2020 Sergi Castella Sapé. *MSc AI University of Amsterdam.* Topic: Semantic Representations in Language Models. Co-supervised with Jakub Zavrel

2019-2020 Ioannis Tsiamas. *MSc AI University of Amsterdam.* Topic: Text summarization. Co-supervised with Jakub Zavrel

2019-2020 Ragger Jonkers. *MSc AI University of Amsterdam.* Topic: Extracting semantic patterns from scientific papers. Co-supervised with Jakub Zavrel

2017-2018 *University of Amsterdam.* Applied Language Technology Course. Masters Artificial Intelligence

2016-2017	*University of Amsterdam.* Applied Language Technology Course. Masters Artificial Intelligence
2015-2016	*University of Amsterdam.* Data Mining Course. Bachelors Information Science
2013-2014	*University of Tehran.* Natural Language Processing Course. Masters Artificial Intelligence
2012-2013	*University of Tehran.* Pattern Recognition Course. Masters Artificial Intelligence
2011-2012	*University of Tehran.* Advance Algorithm Course. Masters Artificial Intelligence

Reviewer

2021	ICLR, EACL
2020	ACL, EMNLP, ACL-IJCNLP, LREC, NLP-OSS
2019	NAACL, ECNLP, ACL, TDS
2018	ACL, WMT
2017	WMT

Activities

2020	Invited speaker at *Transformers at Work*, A Deep Learning for NLP Workshop, Amsterdam
2018	Invited speaker at the Machine Learning meetup, Amsterdam Police
2018	Invited speaker at the CL Seminar Series of the ILLC, University of Amsterdam
2018	Presentation in Deep Learning and Reinforcement Learning Summer School (DLRL2018), Toronto
2018	Organizer and chair of the research group's weekly seminar at University of Amsterdam
2017	Chair of the research group's weekly meeting at University of Amsterdam
2015	Co-developer of Arabic-English and Chinese-English translation systems of the University of Amsterdam for NIST Open MT Evaluation
2015	Participation Google NLP Summit, Zürich
2014	Participation in MT Marathon, Trento

Grants & awards

2018	Travel grant for participating in Deep Learning and Reinforcement Learning Summer School, Toronto, Canada
2017	Travel grant for participating in Association for Computational Linguistics (ACL) conference, Vancouver, Canada
2015	Travel grant for participating in Google's NLP PhD Summit, Zürich, Switzerland
2011	Research grant from Research Institute of ICT (No. CS1391-4-19)
2004	Ranked in the top 0.1% in the national university exam, Iran
2003	Semifinalist in Iran National Olympiad in Informatics

Language skills

Persian (Farsi): Native language
English: Fluent, TOEFL (July 2013) Internet-Based Test: 110/120
Spanish: Proficient, Cervantes DELE Diploma in Spanish Level B2
Dutch: Moderate
Arabic: Moderate