

Hosein Azarbondyad

Information and Language Processing Systems group (ILPS)
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Research Interests

- Information Retrieval
- Machine Learning
- Natural Language Processing

Education

University of Amsterdam

PhD in Information Retrieval

Amsterdam, The Netherlands

Aug. 2014 – Present

- Thesis: Exploratory Search over Structured Documents
- Thesis Advisors: Dr. Maarten Marx and Prof. Maarten de Rijke

University of Tehran

M.Sc. of Information Technology Engineering

Tehran, Iran

Sep. 2010 – Sep. 2013

- GPA: 18.44/20
- Thesis: Cross Language Information Retrieval Using Parallel Corpora
- Thesis Advisors: Dr. Azadeh Shakeri and Dr. Hesham Faili

University of Tabriz

B.Sc. of Computer Science

Tabriz, Iran

Sep. 2006 – Aug. 2010

- Total GPA: 17.5/20
- Last two year GPA: 18.23/20
- Thesis: Solving Art Gallery Problem Using Genetic Algorithms
- Thesis Advisor: Dr. Shahriar Lotfi

Sheykh Mofid High School

Diploma of Mathematics and Physics Discipline;

Ardebil, Iran

Sep. 2002 – Jun. 2006

- GPA: 19.23/20

Honors & Awards

- Best Paper Award, The 2nd ACM SIGIR International Conference on the Theory of Information Retrieval (ICTIR), 2016
- Best Poster Award, European Conference on Information Retrieval (ECIR), 2015
- Best Paper Honorable Mention, Conference and Labs of the Evaluation Forum (CLEF), 2016
- Student Travel Grant for attending the following conferences: ECIR2017, ICTIR2016, SIGIR2016, SIGIR2015, RuSSIR2015, ECIR2015
- CLARIN ERIC Grant for attending Creative Camp 3 at Talk of Europe, 2015
- Ranked 1st among all B. Sc. Computer Science Students, 2010
- *Ranked 17th* in 15th Iranian National Olympiad in Computer Science, 2010
- *Ranked 3th* in 15th Iranian National Olympiad in Computer Science in Northwest of Iran, 2010

- Receiving Iran Telecommunication Research Center (ITRC) Scholarship, 2012
- Receiving Faculty of Mathematics of University of Tabriz Scholarship, 2007-2010
- Winner of FOM (Faculty of Mathematics) Award, 2006-2010
- Recognized as Talented Student in the nationwide NODET exam, 2006

Publications

- **Hosein Azarbonyad**, Mostafa Dehghani, Tom Kenter, Maarten Marx, Jaap Kamps, and Maarten de Rijke, “HiTR: Hierarchical Topic Model Re-estimation for Measuring Topical Diversity of Documents”, Submitted to IEEE Transactions on Knowledge and Data Engineering (TKDE), 2017.
- **Hosein Azarbonyad**, Mostafa Dehghani, Maarten Marx, and Jaap Kamps, “Learning to Rank for Multi Label Text Classification: Combining Different Sources of Information”, Submitted to Information Processing and Management Journal (IPM), 2017.
- **Hosein Azarbonyad**, Azadeh Shakery and Hesham Faili, “Using Learning to Rank Approach for Cross Language Information Retrieval”, Submitted to Journal of Natural Language Engineering (JNLE), 2017.
- **Hosein Azarbonyad**, Mostafa Dehghani, Kaspar Beelen, Alexandra Arkut, Maarten Marx, and Jaap Kamps, “Words are Malleable: Computing Semantic Shifts in Political and Media Discourse”, To appear In Proceedings of The ACM International Conference on Information and Knowledge Management (CIKM), 2017.
- Mostafa Dehghani, Glorianna Jagfeld, **Hosein Azarbonyad**, Alex Olieman, Jaap Kamps, and Maarten Marx, “On Search Powered Navigation”, To appear In Proceedings of 3rd ACM SIGIR International Conference on the Theory of Information Retrieval (ICTIR), 2017.
- Mostafa Dehghani, **Hosein Azarbonyad**, Jaap Kamps, and Maarten de Rijke, “Share your Model instead of your Data: Privacy Preserving Mimic Learning for Ranking”, In Proceedings of SIGIR 2017 Workshop on Neural Information Retrieval (Neu-IR), 2017.
- **Hosein Azarbonyad**, Mostafa Dehghani, Tom Kenter, Maarten Marx, Jaap Kamps, and Maarten de Rijke, “Hierarchical Re-estimation of Topic Models for Measuring Topical Diversity”, In Proceedings of the 39th European Conference on Information Retrieval (ECIR), 2017.
- Mostafa Dehghani, Glorianna Jagfeld, **Hosein Azarbonyad**, Alex Olieman, Jaap Kamps, and Maarten Marx, “Telling How to Narrow it Down: Browsing Path Recommendation for Exploratory Search”, In Proceedings of the 2017 ACM SIGIR Conference on Human Information Interaction and Retrieval (CHIIR), 2017.
- Mostafa Dehghani, **Hosein Azarbonyad**, Jaap Kamps, Djoerd Hiemstra, and Maarten Marx, “Luhn Revisited: Significant Words Language Models”, In Proceedings of The ACM International Conference on Information and Knowledge Management (CIKM), 2016.
- **Hosein Azarbonyad** and Evangelos Kanoulas, “Power Analysis for Interleaving Experiments by Means of Offline Evaluation”, In Proceedings of 2nd ACM SIGIR International Conference on the Theory of Information Retrieval (ICTIR), 2016.
- Mostafa Dehghani, **Hosein Azarbonyad**, Jaap Kamps, and Maarten Marx, “On Horizontal and Vertical Separation in Hierarchical Text Classification”, In Proceedings of 2nd ACM SIGIR International Conference on the Theory of Information Retrieval (ICTIR), 2016. [**Best Paper Award**]

- Mostafa Dehghani, **Hosein Azarbonyad**, Jaap Kamps, and Maarten Marx, “Two-Way Parsimonious Classification Models for Evolving Hierarchies”, In Proceedings of Conference and Labs of the Evaluation Forum (CLEF), 2016.
- **Hosein Azarbonyad**, “Measuring Interestingness of Political Documents”, In Proceedings of the 39th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR), 2016.
- Mostafa Dehghani, **Hosein Azarbonyad**, Maarten Marx, and Jaap Kamps, “Generalized Group Profiling for Content Customization”, In Proceedings of Proceedings of the 2016 ACM on Conference on Human Information Interaction and Retrieval (CHIIR), 2016.
- **Hosein Azarbonyad**, Ferron Saan, Mostafa Dehghani, Maarten Marx and Jaap Kamps, “Are Topically Diverse Documents Also Interesting?”, In Proceedings of Conference on Multilingual and Multimodal Information Access Evaluation (CLEF), 2015.
- **Hosein Azarbonyad**, Mostafa Dehghani, Maarten Marx and Jaap Kamps, “Time-Aware Authorship Attribution for Short Text Streams”, In Proceedings of the 38th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR), 2015.
- Mostafa Dehghani, **Hosein Azarbonyad**, Maarten Marx, and Jaap Kamps, “Sources of Evidence for Automatic Indexing of Political Texts”, In Proceedings of 37th European Conference on IR Research (ECIR), 2015. [**Best Poster Award**]
- Alex Olieman, **Hosein Azarbonyad**, Mostafa Dehghani, Jaap Kamps and Maarten Marx, “Entity Linking by Focusing DBpedia Candidate Entities”, In Proceedings of the first international workshop on Entity recognition & disambiguation, 2014.
- **Hosein Azarbonyad**, Azadeh Shakery and Hesham Faili, “Exploiting Multiple Translation Resources for English-Persian Cross Language Information Retrieval”, In Proceedings of Conference on Multilingual and Multimodal Information Access Evaluation (CLEF), 2013.
- **Hosein Azarbonyad**, Azadeh Shakery and Hesham Faili, “Learning to Exploit Multiple Translation Resources for Cross Language Information Retrieval”, in International Journal of Information and Communication Technology Research, 2013.
- **Hosein Azarbonyad**, Azadeh Shakery and Hesham Faili, “Using Learning to Rank Approach for Parallel Corpora Based Cross Language Information Retrieval”, In Proceeding of 20th European Conference on Artificial Intelligence (ECAI), 2012.
- **Hosein Azarbonyad** and Reza Babazadeh, “A Genetic Algorithm for Solving Quadratic Assignment Problem (QAP)”, in Proceeding of 5th International Conference of Iranian Operations Research Society (ICIORS), 2012.

Community Services

- **Program Committee member**, 11th Russian Summer School in Information Retrieval (RuSSIR2017).
- **Program Committee member**, The 26th ACM International Conference on Information and Knowledge Management (CIKM2017).
- **Proceedings Chair**, Tenth ACM International Conference on Web and Data Mining (WSDM2017).

- **Organizing Committee member**, 2015 Dutch Belgian Information Retrieval workshop (DIR), November 27, 2015.
- **Program Committee member**, 2015 Dutch Belgian Information Retrieval workshop (DIR), November 25, 2016.
- **Organizer**, Search Engines Amsterdam (SEA) meetup, 20162017, with close to 1000 members..

Teaching Experiences

Teaching Assistant, Search Engines <i>Dr. Maarten Marx, Informatics Institute, University of Amsterdam</i>	Fall 2014, 2015, and 2016
Teaching Assistant, Collective Intelligence <i>Dr. Maarten Marx, University of Amsterdam</i>	Spring 2015
Teaching Assistant, Intelligent Information Retrieval <i>Dr. Azadeh Shakery, School of ECE, University of Tehran</i>	Spring 2013
Teaching Assistant, Data Mining <i>Dr. Azadeh Shakery, School of ECE, University of Tehran</i>	Fall 2013
Teaching Assistant, Decision Support Systems <i>Dr. Maryam Mirian, School of ECE, University of Tehran</i>	Spring 2012
Teaching Assistant, Social Networks <i>Dr. Masoud Asadpour, School of ECE, University of Tehran</i>	Spring 2012
Teaching Assistant, Evolutionary Computing <i>Dr. Mohammad Reza Feizi Derakhshi, Faculty of Mathematics, University of Tabriz</i>	Spring 2010

Selected Projects

Designing Business Intelligence and Data Analytics System <i>University of Tehran</i>	UT Help-Desk System
Designing Community Detection Plugin for Gephi <i>Developed in Java under Netbeans platform</i>	UT Social Networks Lab
Designing Community Tracking Plugin for Gephi <i>Developed in Java under Netbeans platform</i>	UT Social Networks Lab
Using Genetic Algorithm for Query Optimization in CLIR <i>using Lucene & Java</i>	Information Retrieval
Applications of Statistical Methods in CLIR <i>using Lucene & Java & Weka</i>	Data Mining
Exploiting Wikipedia Graph in Information Retrieval <i>using Lucene & Java & Gephi & Jung</i>	Social Networks
Studying and Developing Codes of Reconfigurable Video Coding <i>Developed in C++</i>	Multimedia Systems

Technical Skills

Programming:	Java & Python & C/C++ & Matlab Familiar with C# & Pascal & Fortran
Database Systems:	MySQL, SQL server
Tools and Libraries :	Graphs: Gephi & Jung

Data Mining: Weka & Clementine & scikit-learn

Information Retrieval: Lucene & Lemur

Machine Learning: Theano & Tensorflow

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References

Available upon request.