

# Mohammad Aliannejadi

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## Education

- 2015-present **Doctor of Philosophy**, *Università della Svizzera italiana*, Lugano, Switzerland,  
Adviser: Fabio Crestani.  
Project: Relevance Criteria Combination for Mobile Information Retrieval (RelMobIR)
- 2011-2014 **Master of Science**, *Amirkabir University of Technology (Tehran Polytechnic)*,  
Tehran, Iran.  
Major: Computer Engineering, Minor: Artificial Intelligence
- 2006-2011 **Bachelor of Science**, *Hamedan University of Technology*, Hamedan, Iran.  
Major: Computer Engineering, Minor: Hardware

## Research Interests

Information Retrieval and Text Mining  
Recommender Systems  
Natural Language Processing  
Data Mining and Machine Learning

## Research Visits

- 2018-present Visiting Scholar, Center for Intelligent Information Retrieval (CIIR), University of  
Massachusetts Amherst, MA, USA (Duration: October 01 2018 – February 01  
2019), Adviser: W. Bruce Croft
- 2018 Visiting Researcher, University of Udine, Italy (Duration: February 21 – 23 2018),  
Collaborator: Stefano Mizzaro
- 2017 Visiting Researcher, Institut de Recherche en Informatique de Toulouse (IRIT),  
France (Duration: July 07 – 15 2017), Collaborator: Josiane Mothe

## Publications

- 2019 **Understanding Mobile Search Task Relevance and User Behaviour in Con-  
text**, *M. Aliannejadi, M. Harvey, L. Costa, M. Pointon, and F. Crestani*, ACM  
SIGIR Conference on Human Information Interaction and Retrieval (**CHIIR**), 2019,  
Glasgow, Scotland, UK (to appear).
- 2018 **Personalized Context-Aware Point of Interest Recommendation**,  
*M. Aliannejadi and F. Crestani*, ACM Transactions on Information Systems  
(**TOIS**), 36(4), 45:1-45:28 (2018).

- 2018 **In Situ and Context-Aware Target Apps Selection for Unified Mobile Search**, *M. Aliannejadi, H. Zamani, F. Crestani, and W. B. Croft*, International Conference on Information and Knowledge Management (**CIKM**), 2018, Turin, Italy, pages 1383-1392.
- 2018 **A Collaborative Ranking Model with Multiple Location-based Similarities for Venue Suggestion**, *M. Aliannejadi, D. Rafailidis, and F. Crestani*, International Conference on the Theory of Information Retrieval (**ICTIR**), 2018, Tianjin, China, pages 19-26.
- 2018 **Target Apps Selection: Towards a Unified Search Framework for Mobile Devices**, *M. Aliannejadi, H. Zamani, F. Crestani, and W. B. Croft*, International Conference on Research and Development in Information Retrieval (**SIGIR**), 2018, Ann Arbor, Michigan, USA, pages 215-224.
- 2017 **A Cross-Platform Collection for Contextual Suggestion**, *M. Aliannejadi, I. Mele, and F. Crestani*, International Conference on Research and Development in Information Retrieval (**SIGIR**) 2017, Tokyo, Japan, pages 1269-1272.
- 2017 **Venue Appropriateness Prediction for Personalized Context-Aware Venue Suggestion**, *M. Aliannejadi and F. Crestani*, International Conference on Research and Development in Information Retrieval (**SIGIR**), 2017, Tokyo, Japan, pages 1177-1180.
- 2017 **Personalized Keyword Boosting for Venue Suggestion based on Multiple LBSNs**, *M. Aliannejadi, D. Rafailidis, and F. Crestani*, European Conference on Information Retrieval (**ECIR**), 2017, Aberdeen, Scotland, pages 291-303.
- 2017 **Personalized Ranking for Context-Aware Venue Suggestion**, *M. Aliannejadi, I. Mele, and F. Crestani*, ACM Symposium on Applied Computing (SAC), 2017, Marrakesh, Morocco, pages 960-962.
- 2016 **Venue Appropriateness Prediction for Contextual Suggestion**, *M. Aliannejadi, I. Mele, F. Crestani*, Text REtrieval Conference (TREC), 2016, Gaithersburg, Maryland, USA.
- 2016 **User Model Enrichment for Venue Recommendation**, *M. Aliannejadi, I. Mele and F. Crestani*, Asia Information Retrieval Societies Conference (AIRS), 2016, Beijing, China, pages 212-223.
- 2015 **University of Lugano at TREC 2015: Contextual Suggestion and Temporal Summarization Tracks**, *M. Aliannejadi, SA. Bahrainian, A. Giachanou, F. Crestani*, Text REtrieval Conference (TREC), 2015, Gaithersburg, Maryland, USA.
- 2014 **Graph-Based Semi-Supervised Conditional Random Fields For Spoken Language Understanding Using Unaligned Data**, *M. Aliannejadi, M. Kiaeeha, S. Khadivi and S. Shiry Ghidary*, Australasian Language Technology Workshop (ALTW), 2014, Melbourne, Australia, pages 98-103.
- 2014 **Improved Churn Prediction In Telecommunication Industry Using Data Mining Techniques**, *A. Keramati, R. Jafari-Marandia, M. Aliannejadi, I. Ahmadian, M. Mozaffarian and U. Abbasi*, Elsevier Journal on Applied Soft Computing, 24, 994-1012 (2014).

- 2013 **Discriminative Spoken Language Understanding Using Statistical Machine Translation Alignment Methods**, *M. Aliannejadi, S. Khadivi, S. Shiry Ghidary, and M.H. Bokaei*, International Symposium on Artificial Intelligence and Signal Processing (AISP), 2013, Tehran, Iran, pages 194-202.

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## Honors

- 2016 Ranked first in the Contextual Suggestion Track, TREC 2016  
2015 Ranked first in the Contextual Suggestion Track, TREC 2015

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## Academic Services

### Peer Review

- 2018 **PC Member**.  
◦ SIGIR 2018
- 2018 **Journal Reviewer**.  
◦ ACM Transactions on Information Systems (TOIS)  
◦ Elsevier Information Processing and Management (IP&M)
- 2015-present **External Reviewer**.  
◦ ECIR 2016, 2019  
◦ ICTIR 2017, 2018  
◦ ICADL 2017, 2018  
◦ CIKM 2017  
◦ KDD 2015
- ### Organization
- 2018-2019 **Local Organizer**, *The 10<sup>th</sup> CLEF Conference and Labs of the Evaluation Forum*, Università della Svizzera italiana (USI), Lugano, Switzerland.
- 2017-present **ACM SIGIR Student Liaison**, *Representing Europe and Africa*.
- 2017 **Publicity Chair**, *The 8<sup>th</sup> Italian Information Retrieval Workshop (IIR)*, Università della Svizzera italiana (USI), Lugano, Switzerland.
- 2015 **Co-Organizer**, *DBTA Workshop on Life Logging and Long-Term Digital Preservation*, Università della Svizzera italiana (USI), Lugano, Switzerland.

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## Experience

### Teaching

- 2015-present **Teaching Assistant**, *Università della Svizzera italiana*, Lugano, Switzerland.  
Teaching assistant for the following courses:  
◦ Information Retrieval  
◦ Databases  
◦ User Experience Design  
◦ Human-Computer Interaction Atelier

2010-2012 **Teaching Assistant**, *Hamedan University of Technology*, Hamedan, Iran.

Teaching assistant for the following courses:

- Advanced Programming: C++ Language
- Data Structures
- Introduction to Algorithms
- Introduction to Formal Languages and Automata

### Professional

2014-2015 **.NET Developer**, *Batis Idea Processors Ltd.*, Tehran, Iran.

Developed C# .NET component for sending and receiving email and fax, which was a part of a big project.

2009-2012 **Software Designer and Developer**, *Hushmandsazan Bisim Gharb*, Hamedan, Iran.

Working with a team of Electrical Engineers, I did all the software design and development process to get a large Windows application integrated with the hardware designed for it.

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## Master Thesis

Title *Language Understanding Using Semi-labeled Corpora in Robotics Applications*

Advisers Saeed Shiry Gheidary, Shahram Khadivi

Description The project follows completed research on spoken/formal language understanding using different machine learning approaches. I utilized graph-based semi-supervised conditional random fields (CRF) to train a spoken language understanding system using only 10% of the labeled data and improve the performance of the baseline models by the use of the unlabeled data.

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## Languages

Persian **Native**

English **Fluent**

Italian **Intermediate**

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## Programming Skills

### Tools

Pandas, Seaborn, NLTK, Galago, RankLib, Terrier, Lucene, CRFSuite, CRF++, Junto

### Languages

Expert Python, C, C++, C#

Intermediate MATLAB, Java, PHP, MySQL, SQL Server

Basic UML, HTML, Java, Javascript, Objective-C, Shell Script

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## Other Activities

2017-present Occasional photographer and sports journalist.

2015 Co-organizer of USI Board Games Events series, Università della Svizzera italiana (USI), Lugano, Switzerland

2009-2011 Chair of HUT Association of Film and Music, Hamedan University of Technology, Hamedan, Iran

2006-2009 Chair of HUT Students Association, Hamedan University of Technology, Hamedan, Iran

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## References

Available upon request.