

Mohammad Aliannejadi

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Education

- 2015-present **Doctor of Philosophy**, *Università della Svizzera italiana*, Lugano, Switzerland.
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

Publications

- 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.
- 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.
- 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.
- 2017 **Personalized Ranking for Context-Aware Venue Suggestion**, *M. Aliannejadi, I. Mele, and F. Crestani*, ACM Symposium on Applied Computing (SAC), 2017, Marrakesh, Morocco.
- 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.
- 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.
- 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*, Applied Soft Computing (Elsevier).
- 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.

Experience

- 2015-present **External reviewer:**
 - KDD 2015
 - ECIR 2016
 - ICADL 2017
 - ICTIR 2017
 - CIKM 2017
- 2015-present **Teaching Assistant**, *Università della Svizzera italiana*, Lugano, Switzerland.
Teaching assistance for courses:
 - Information Retrieval
 - Databases
 - User Experience Design
 - Human-Computer Interaction Atelier
- 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.
- 2010-2012 **Teaching Assistant**, *Hamedan University of Technology*, Hamedan, Iran.
Teaching assistance for courses:
 - Advanced Programming: C++ Language
 - Data Structures
 - Introduction to Algorithms
 - Introduction to Formal Languages and Automata
 - There has been a series of private classes on this courses I also managed.
- 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.

Honors

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

Master Thesis

- Title *Language Understanding Using Semi-labeled Corpora in Robotics Applications*
- Supervisors Saeed Shiry Gheidary, Shahram Khadivi
- Description Project follows completed research on spoken/formal language understanding using different machine learning approaches. I utilized Graph-based Semi-supervised CRF to learn the SLU system using only 10% of the labeled data and improve the basic system's performance by the use of the unlabeled data knowledge. The implementation consists of development in Java language, and Python. Many toolboxes such as CRFSuite and Junto which are in C and Scala languages are edited to be compatible for the project's purpose.

Bachelor Thesis

- Title *Car Number-plate Detection and Recognition In Persian*
- Supervisor Hassan Khotanloo
- Description Project based on MATLAB language; Persian car number-plate is first detected and then by segmentation in the numbers and alphabet of the number-plate, it is recognized. I have utilized various image processing techniques to detect the number-plate and used 2D Image Correlation to recognize the numbers and the alphabet.

Other Projects

Master projects

- C++ Implementation of a Naïve Bayes Text Classifier in C++ Language. I trained and tested this classifier on 20-newsletter corpus.
- MATLAB Implementation of Self Organizing Maps artificial neural network in MATLAB using 1D and 2D neighborhood with training visualization.
- MATLAB Optimization of an edge - detection algorithm using compiler transformations
- MATLAB Implementation of Perceptron neural network in MATLAB.
- MATLAB Implementation of Q-learning in MATLAB with visualization of the training process.
- Python Implementation of a Maximum Entropy Sequential Tagger for SLU.
- Misc. Design of a basic Statistical Machine Translator using AT&T Finite State Machines tools.
- Python Implementation of a simple Conditional Random Fields Sequential Tagger

Bachelor Projects

- C++ Implementation of logic circuit simulator under MFC for GUI.
- C++ Implementation of an Assembly Language Editor and Compiler.
- C# Implementation of a LZW Compressor with the design of the self-extractor for the compressed files.

Miscellaneous Projects

- ASP 3.0 Design and development of a Persian fun and humor community website.
PHP Modification of the PHP-Fusion CMS to customize it for university portal.

Languages

- Persian **Native**
English **Fluent**
Italian **Intermediate**

Computer Skills

- Basic UML, HTML, Java, Javascript, Objective-C, Shell Script
Intermediate MATLAB, Java, PHP, MySQL, SQL Server
Expert Python, C, C++, C#
Tools Pandas, NLTK, Terrier, Lucene, CRFSuite, CRF++, Junto, AT&T FSM

Other Activities

- 2017-present ACM SIGIR Student Liaison. Representing Europe and Africa.
2017-present Occasional photographer and sports journalist.
2017 Publicity chair of the 8th Italian Information Retrieval Workshop (IIR), Università della Svizzera italiana (USI), Lugano, Switzerland
2015 Co-organizer of DBTA Workshop on Life Logging and Long-Term Digital Preservation, Università della Svizzera italiana (USI), Lugano, Switzerland
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

References

Available upon request.