1420 Towers St. Apt 401
Montreal, QC, Canada
+1 (514) 690 7071
mjlaali@gmail.com
www.laali.ir/majid

Majid Laali

Education

2013–present **Ph.D. in Computer Science**, *Concordia University*, Montreal, QC, Canada.
GPA 4.2/4.3

2009–2012 **M.Eng. in Machine Intelligence and Robotics**, *University of Tehran*, Tehran, Iran.
GPA: 17.17/20

2002–2008 **B.Eng. in Computer Engineering**, *University of Tehran*, Tehran, Iran.
GPA: 15.08/20(Last 60 Units)

Doctoral Proposal

title *Identification of Explicit Discourse Relations Using Parallel Texts*

supervisors Prof. Leila Kosseim

description Given English and French parallel texts, we build a statistical model that learns how discourse information is translated from English to French, in order to extract the discourse information present in the French texts, given the parallel English texts. We plan to exploit deep neural networks for transferring discourse information.

Master Thesis

title *Feature Selection For Multiword Expression Extraction*

supervisors Prof. Hesham Faili

description We proposed a statistical approach for the extraction of multiword expressions, combining both syntactic and lexical features in our model.

Publications

- Laali, M, & Kosseim, L. (2016). "Automatic Disambiguation of French Discourse Connectives". *International Journal of Computational Linguistics and Applications*. (to appear)
- Laali, M., Davoodi, E., & Kosseim, L. (2015). "The CLaC Discourse Parser at CoNLL-2015". In *Proceedings of the Nineteenth Conference on Computational Natural Language Learning - Shared Task*. Beijing, China, pp. 56-60.
- Laali, M., & Kosseim, L. (2014). "Inducing Discourse Connectives from Parallel Texts". In *Proceedings of COLING 2014, the 25th International Conference on Computational Linguistics: Technical Papers*. Dublin, Ireland, pp. 610-619.
- Farmahini-Farahani, A., Laali, M., Moghimi, A., Fakhraie, S. M. & Safari, S. (2007). "Mesh architecture for hardware implementation of Particle Swarm Optimization". In *Proceeding of ICIAS 2007, IEEE International Conference on Intelligent & Advanced Systems*, Kuala Lumpur, Malaysia, pp. 1300-1305.

Work Experience

2014–present **Research and Development Engineer**, *Constellio*, Montreal, QC, Canada.

Developed natural language processing components in Java for Constellio Enterprise Information Management (Constellio EIM) and enhance their IR system:
http://constellio.com

- Developed a component that detects near-duplicate documents using the Okapi BM25 formula.
- Developed a component that automatically classifies documents using the k-Nearest Neighbors classification algorithm.
- Proposed a semi-automatic approach for the evaluation of search engines based on the rank-biased overlap measure and evaluated the performance of Constellio EIM.
- Developed a spell checker using the document language model.
- Developed a tagger that automatically tags documents with concepts in a thesaurus.
- All components were developed for Apache Solr using Test-Driven Development (TDD).

2012-2013 **Research and Development Engineer**, *Cyber Space Research Institute (ex ITRC)*, Tehran, Iran.

Contributed to the development of the first Persian Question Answering system for the Quran:
http://quranjooy.itrc.ac.ir

- Designed the main pipeline of the QA system within the GATE platform motivated by IBM Watson.
- Developed an information retrieval component for the system using Apache Lucene.
- Led a team of four developers.

2007-2010 **Software Engineer**, *Faraazin Machine Translator project*, Tehran, Iran.

Contributed to the development of the first hybrid English to Persian machine translator:
http://www.faraazin.ir

- Performed code refactoring (C++). The refactoring eliminated the memory leak of the translator and improved about 10% performance of the translation time of the translator.
- Mined electronic dictionaries and improved the coverage of the translator's lexicon.
- Developed an evaluator for the translator that automatically evaluates the performance of the translator using BLEU.

Community involvement

- Reviewed papers for FLAIRS-2014, CICLing 2014/2015 and AI 2015 conferences
- Contributed to open source text-mining projects such as DKPro and ClearTk
- Teaching Assistant:
  - COMP 6791: Information Retrieval and Web Search
  - COMP 472: Introduction to Artificial Intelligence
  - COMP 248: Introduction to Programming

Honor and Awards

- Concordia University Conference and Exposition Award.
- Concordia University International Tuition Fee Remission Award.
- ITRC Research Grant for Master Students.
- Honorable Mention and 6th Place, The ACM International Collegiate Programming Contest, Asia Regional Contests, Tehran site, Tehran, 2004, 2005.