AMIR AHMAD HABIBI

(Aug. 2020)

Cell: +1 416 827 5840 Email: amirahmad@ualberta.ca • amirahmad.habibi@gmail.com

EDUCATION

M.Sc. in Computer Science 2018 – 2020 (expected)

University of Alberta, Edmonton, Alberta, Canada

B.Sc. in Computer Software Engineering 2013 – 2018

Amirkabir University of Technology (Tehran Polytechnic), Tehran, Iran

GPA: 17.2 / 20

RESEARCH EXPERIENCES

2019 – 2020 | Master's Thesis Project

Under the supervision of Dr. Kondrak | University of Alberta

Homonym Detection

In this project, we have worked on parallel corpora and resources such as BabelNet and WordNet and explored different methods of extracting semantic relations between senses to detect homonymous words.

2018 – 2019 | Research Internship

Under the supervision of Dr. Xu | University of Toronto

Chaining and the Growth of Linguistic Categories [github]

We explored how linguistic categories extend over time as novel items are assigned to existing categories. As a case study we considered how Chinese numeral classifiers were extended to emerging nouns over the past half century.

2017 – 2018

Under the supervision of Dr. Batista-Navarro | The University of Manchester

Causal Relations Extraction

This was my first project in NLP during my undergraduate studies. The goal here was to develop an NLP-based tool for extracting causal relations from environmental science literature. Machine Learning techniques will be used afterward, on a corpus that we have annotated its causal relations.

2017 – 2018 | B.Sc. Thesis Project

Under the supervision of Dr. Momtazi | Amirkabir University of Technology

Question Type and Topic Classification in Community Question Answering [github]

I used Machine Learning techniques in this project to determine the type and the category of questions so they can be more easily tagged and classified. There has not been much work done on this topic in the Persian language so the resulting tool can be quite useful in Persian Q&A websites.

PUBLICATIONS & SUBMITTED PAPERS

2020

Amir Ahmad Habibi | Charles Kemp | Yang Xu

Chaining and the Growth of Linguistic Categories [link]

Cognition.

2020

Bradley Hauer | Amir Ahmad Habibi | Yixing Luan | Arnob Mallik | Grzegorz Kondrak

Low-Resource G2P and P2G Conversion with Synthetic Training Data [link]

Proceedings of the 17th SIGMORPHON Workshop on Computational Research in Phonetics, Phonology, and Morphology.

2019
Bradley Hauer | Amir Ahmad Habibi | Yixing Luan | Rashed Rubby Riyadh | Grzegorz Kondrak
Cognate Projection for Low-Resource Inflection Generation [link]
Proceedings of the 16th Workshop on Computational Research in Phonetics, Phonology, and Morphology, pages 6-11, Florence, Italy.

2018
Amir Ahmad Habibi | Saeedeh Momtazi
Types for Topics and Topics for Types: A Joint Question Type-Topic Classification in Community Question Answering
(submitted)

TEACHING ASSISTANTSHIP

Intro to Foundations of Computation II — Fall 2018, Winter & Fall 2019, Winter 2020
CS dep., University of Alberta
Design of Algorithms Course — Winter-Spring 2017
CS dep., Amirkabir University of Technology
Advanced Computer Programming Course — Winter-Spring 2017
CEIT dep., Amirkabir University of Technology
Design of Programming Languages Course — Fall 2016
CEIT dep., Amirkabir University of Technology
Operating Systems Design Course — Fall 2016
CEIT dep., Amirkabir University of Technology

TOP ACADEMIC COURSE PROJECTS

Fall 2018 | Bilingual Lexicon Induction on Low-Resource Languages
Working with parallel corpora and word embeddings using Python, *Natural Language Processing*

Spring 2017 | Unsupervised Learning: Association Rule Mining
Regression, Classification etc. using Python and RapidMiner, *Foundations of Data Mining*

Fall 2016 | Design and implementation of a smart Pacman agent
Local search algorithms, Optimization algorithms like GA using Python, *Artificial Intelligence*

Spring 2016 | Design and implementation of a simple healthcare database system
Using MySQL and Python, *Principles of Database Design*

Fall 2015 | Process Migration on XV6, Process scheduling and Pipeline
Using C, *Operating Systems*

Fall 2015 | Implementation of the MIPS architecture
Using VHDL, *Computer Architecture Lab*

Spring 2015 | Design and implementation of a basic search engine
TF-IDF, Clustering and Searching in text using Java, *Data Storage and Retrieval*

Spring 2014 | Implementation of a 2D strategic game with multi-player support
Multi-threading using Java, *Advanced Computer Programming*

OTHER EXPERIENCE AND SKILLS

Dev Stack:
Python, Java, C/C++, Also familiar with MySQL and Microsoft SQL Server

Natural Language Processing & Data Analysis Tools and Frameworks:
NLTK, Scikit-learn, SciPy, NumPy, Pandas, NetworkX, Gensim, fast_align, Weka, Meka, GENIA

Resources and Datasets worked with:
BabelNet, WordNet, Google Ngrams, MultiWordNet, MultiSemCor, EuroParl, OPUS

Reviewed for:
EMNLP 2019, ACL 2020, IJCAI 2020, SIGMORPHON 2020, *SEM 2020