

AmirAli Kaboli | Curriculum Vitae

Amirkabir University of Technology - Department of Mathematics and Computer Science

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EDUCATION

- Bachelor of Science 2017–2021(expected)
Amirkabir University of Technology (Tehran Polytechnic)
Ranked 2nd in Iran according to QS Ranking
 - Computer Science
 - GPA: 17.87/20 (3.86/4)
 - Thesis: Intent Detection in Conversational Recommender Systems

HONORS

- Ranked 4th in Computer Science, among 64 students, Amirkabir University of Technology, Tehran, Iran.
- Ranked within the top 1% in university entrance exam, among more than 148,000 participants. [Summer 2017]
- Granted admission from Talented Student Office of Amirkabir University of Technology for graduate study.

RESEARCH INTERESTS

- Natural Language Processing
- Machine Learning
- Data Mining
- Information Retrieval

TEACHING EXPERIENCE

- Artificial Intelligence Teacher Assistant [Fall 2020]
 - Under supervision of Dr. Saeed Shiry Ghidary
 - Defined class assignments
 - Corrected & graded assignments part
- Introduction to the Theory of Computation Teacher Assistant [Fall 2019]
 - Under supervision of Dr. Fatemeh Zare Mirakabad
 - Held class for about 10 students
 - Corrected & graded assignments part
- Foundation of Combinatorics Teacher Assistant [Spring 2019]
 - Under supervision of Dr. Saeed Kazem
 - Held class for about 30 students

RESEARCH EXPERIENCE

- Intent Detection in Conversational Recommender Systems [Spring 2021-Present]
 - Under supervision of Dr. Mohammad Akbari
 - Used MultiWOZ dataset

- Examined Stack-Propagation paper on my dataset
- Examined Co-Interactive transformer paper on my dataset
- Examined Bi-model with decoder paper on my dataset
- Built a two steps method with combining a binary classification with Fasttext for non-intent utterances and Bi-model with decoder for intent classes
- o Member of iDS Lab
 - Under supervision of Dr. Mohammad Akbari

[Spring 2021-Present]

WORK EXPERIENCE

o Data Scientist  Cafe Bazaar	Mar 2021–Sep 2021 Tehran-Iran	o Machine Learning Engineer  Sotoon - AI Part	Oct 2019–Feb 2021 Tehran-Iran
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I have worked in Hazardastan Group since Oct 2019. It contains Cafe Bazaar(local app store with more than 45M active users), Divar(buy & sell advertisements platform with more than 35M users), Sotoon(cloud & AI services provider). In Sotoon, I have prepared codes and trained models for production as microservices on distributed systems. In Cafe Bazaar, I have worked on improving an apps recommender system that contains recommendation and ranking parts. It has been evaluated by both hit-rate and user engagement metrics.

ACADEMIC PROJECTS

o Papers Recommender	[Spring 2021]
<ul style="list-style-type: none"> - Used SVD matrix factorization as Collaborative Filtering - Used Doc2Vec as Content-Based Filtering - Implemented a Hybrid method with combining above methods 	
o Captcha Detection	[Spring 2021]
<ul style="list-style-type: none"> - Used a method with using PCA plus Random Forest - Used Convolutional Neural Networks 	
o Bank's Customers EDA and Classification	[Spring 2021]
<ul style="list-style-type: none"> - Used EDA techniques to find relations between features and find best features - Used Decision Tree for classifying personal loan customers 	
o Earthquake Analysis on Spatial Data	[Spring 2021]
<ul style="list-style-type: none"> - Used spatial libraries like GeoPandas and Folium - Estimated a location for building a new station with the most coverage 	
o Persian Poet Detection	[Fall 2020]
<ul style="list-style-type: none"> - Used classic methods like SVM, Random Forest and AdaBoost - Used Fasttext for representations and classification - Used Recurrent Neural Networks like LSTM - Implemented an UI demo with Streamlit library 	
o Persian Language Model	[Fall 2020]
<ul style="list-style-type: none"> - Used N-Grams with various smoothing functions - Used Recurrent Neural Networks like LSTM 	
o Disease Detection based on Reviews	[Fall 2020]
<ul style="list-style-type: none"> - Used TF-IDF vectorizing plus various methods like Logistic Regression and Random Forest - Implemented an UI demo with Streamlit library 	
o Persian News Classification	[Fall 2020]
<ul style="list-style-type: none"> - Implemented both char-based and word-based classification - Used TF-IDF vectorizing plus SVM 	
o Houzz Data Scrapper	[Fall 2020]
<ul style="list-style-type: none"> - Used Scrapy library to implement a spider over houzz.com 	
o Persian Email Spam Detection	[Fall 2020]

- Used TF-iDF vectorizing plus Naive Bayes and KNN
- o Twitter Sentiment Analysis [Fall 2020]
 - Used Count vectorizing plus SVM
- o Persian News Retrieval [Spring 2020]
 - Built inverted index and champion lists
 - Used TF-iDF vectorizing
 - Used Cosine similarity measure to find related documents based on a query
- o Machine Learning Algorithms [Spring 2020]
 - Implemented popular Regression and Classification algorithms without using libraries
- o Artificial Intelligence Class Projects [Spring 2019]
 - Searching algorithms
 - Regression using genetic algorithm
 - Document's image alignment

COURSES

- o Special Topics in Data Mining (M.Sc) [Spring 2021] [Fall 2020]
 - Data Science
 - Grade: 19.25/20 (*A⁺*)
- o Data Mining [Spring 2021] [Spring 2020]
 - Grade: 20/20 (*A⁺*)
- o Natural Language Processing (M.Sc) [Fall 2020] [Spring 2019]
 - Grade: 18.5/20 (*A⁺*)
- o Special Topics in Computer Science [Fall 2020]
 - Social Networks Analysis
 - Grade: 20/20 (*A⁺*)
- o Information Retrieval [Spring 2020]
 - Grade: pass (pass/fail system due to COVID-19)
- o Artificial Intelligence [Spring 2019]
 - Grade: 20/20 (*A⁺*)

ONLINE COURSES

- o Machine Learning
- o Natural Language Processing with Deep Learning
 - Chris Manning
 - In Progress
- o Deep Learning Specialization
 - Andrew Ng
 - In Progress
- o Advanced Python Programming, project based

EXAM SCORES

- o TOEFL iBT: will be taken on November 13, 2021
- o GRE General: will be taken on November 15, 2021

SKILLS

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|------------------------|---|
| Programming Languages: | C/C++, Python |
| Libraries: | Numpy, Pandas, Scikit-Learn, Pytorch, Matplotlib, Seaborn, NLTK, Streamlit, Pyspark |
| Web Technologies: | HTML, CSS, MySQL, Django |
| Operating Systems: | Linux, Windows |
| Miscellaneous: | L ^A T _E X, Jupyter, Git, Bash |

 **References, Further information, and Proofs are available upon Request**