

# Amirmohammad Kazemeinizadeh



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## Education

Jan. 2021 – now	<b>Western University</b> M.Sc. in Computer Science (Vector Institute Collaborative Specialization in AI) Under supervision of <a href="#">prof. Robert E Mercer</a>
Sep. 2015 – Feb. 2020	<b>Iran University of Science and Technology (<a href="#">Iran top 3</a>)</b> B.Sc. in Computer Engineering (Software) GPA: 3.64/4 GPA (Last 2 semesters): 3.82/4
Sep. 2011 – Jun. 2015	<b>Allame Helli 1 High School</b> Affiliated with the <a href="#">National Organization for Development of Exceptional Talents(NODET)</a> Diploma in “Mathematics and Physics” GPA: 4/4

## Research Interests

Applied Machine Learning (Affective Computing, Computational Psychology, Social Science and Linguistics)  
Natural Language Processing  
Machine Learning and Deep Learning  
Data mining  
Artificial Intelligence

## Publications

IEEE TAFFC 2020 [Under review]	Y. LI, <b>A. Kazemeini</b> , Y. Mehta, E. Cambria " <b>Multitask Learning for Emotion and Personality Detection</b> " IEEE Transactions on Affective Computing
IEEE ICDM 2020	Y. Mehta, S. Fatehi, <b>A. Kazemeini</b> , C. Stachl, E. Cambria, S. Eetemadi " <b>Bottom-Up and Top-Down: Predicting Personality with Psycholinguistic and Language Model Features</b> " IEEE International Conference on Data Mining
ACL WinNLP 2020	<b>A. Kazemeini</b> , S. Fatehi, Y. Mehta, S. Eetemadi, E. Cambria " <b>Personality Trait Detection using Bagged SVM over BERT word embedding ensembles</b> " Association of Computational Linguistics- Widening NLP workshop

## Notable Projects

<u>Personality Detection</u> (NLP) March. 2019 – Present	<b>Improved the performance of the <u>former state-of-the-art model in Personality Detection</u> (with more than <u>240 citations</u> since 2017)</b> <ul style="list-style-type: none"><li>Learning time reduced from 5 hours to 1 hour on CPU and 45s on GPU [<a href="#">Github</a>]</li></ul>
<u>Object Detection</u> (Digital Image Processing) Sep. 2019 – Feb. 2019	<b>Detecting the collision time and position of the ball against the wall</b>
<u>Recommender System</u> (Artificial Intelligence) Sep. 2017 – Feb. 2018	<b>Implementing and comparing conventional Recommender Systems</b>
<u>EasyBot</u> (Software engineering project)	<b>Online Store bot for <u>Telegram</u></b> <ul style="list-style-type: none"><li>Includes shopping cart, shipping time picker, admin panel, advertising schedule, etc.</li></ul>

May. 2017 – Jan. 2018

One Piece (Android)  
Jan. 2017 – Feb. 2017

A bilingual Android Ebook available on Cafe Bazaar

## Academic Experience

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NLP Research Assistant  
Oct. 2020 – Present

### Western University

- Under supervision of prof. Robert E Mercer
- Collaborating with Sentic team under supervision of prof. Erik Cambria
- Working on interpretability of personality detection models.
- Working on enriching computational psychology deep learning models with psychological discoveries (combining symbolic and subsymbolic AI).

Data Analytics (CS 2034) Teaching Assistant  
Spring 2019

### Western University

Dr. Jacob Hunte

Reviewer  
Feb. 2020 – Present

### Elsevier Knowledge-Based Systems(IF=5.1)

### IEEE Computational Intelligence Magazine (IF=5.877)

- Reviewing articles related to NLP applications, DataMining and Personality Detection

NLP Research Assistant  
March. 2019 – Feb. 2020

### Iran University of Science and Technology

- Designed a new general interpretable **personality detection** model which outperformed prior SOTA on different datasets.
- Submitted a paper to IEEE ICDM 2020
- Designed a new **document-classification** model by combining Transfer Learning and Classic Machine Learning methods
- Achieved **new SOTA** in a common personality detection dataset in all traits (outperformed prior SOTA with more than 240 citations since 2017)
- Submitted a paper to ACL-WiNLP 2020 as **the first author**

Data Mining Research Assistant  
Jan. 2018 – March. 2019

### ABDAL (Advance Big Data Analysis Laboratory), Iran University of Science and Technology

- Working on Spatio-temporal outlier detection and clustering methods and Big-data analysis
- Testing and developing models on **475 million** records dataset
- Running the tested code on **4 billion** records per day Big-data stream
- Implemented KAMO: A Generic standalone general-purpose big-data analysis software (Java, Spark(Scala), Python)
- Implemented a variety of Trajectory detection and prediction models (Spark(Scala), KAMO, Python)
- Implemented GKAMO: A web-based interactive big-data graph analysis software (Javascript,Cytoscape.js)

Deep Learning Teaching Assistant  
Fall 2019

### Iran University of Science and Technology

Dr. Pilehvar Undergraduate Course

NLP Teaching Assistant  
Spring 2019

### Iran University of Science and Technology

Dr. Eetemadi Undergraduate Course

Data Mining Teaching Assistant  
Fall 2018

### Iran University of Science and Technology

Dr. Rahmani **Graduate** Course

## Internship Experience

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Data Mining Research Assistant  
Sep. 2017 – Jan. 2018

### ABDAL (Advance Big Data Analysis Laboratory), Iran University of Science and Technology

- Learning Spark(Scala), Java and Clementine as tools of Data Mining

Android Developer  
Nov. 2016 – Jan. 2017

### Red Crescent Society of the Islamic Republic of Iran

- Implementing educational android games

## Honors & Awards

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### Scholarships

Western University  
2020

Recipient of fully-funded M.Sc. of CS admission under supervision of prof. Robert E Mercer (accepted)

Nanyang Technological University  
2020

Recipient of fully-funded Ph.D. admission under supervision of prof. Erik Cambria (rejected)

### ACM

Intra-University ACM  
2017

1<sup>st</sup> team, Iran University of Science and Technology (2 times)

ACM ICP  
2015

1<sup>st</sup> team, First stage of ACM ICPC (among IUST students)

### IOI and IMO

Iranian Olympiad in Mathematics  
2012,2013,2014

Semi-finalist (3 times)

Iranian Olympiad in Informatics  
2013,2014

quarter-finalist (2 times)

### Other

Undergraduate Ranking  
2019

Top 5, Iran University of Science and Technology, Computer Engineering (Software). Eligible to continue M.Sc without entrance exam

SPC AI challenge  
2016

1<sup>st</sup> team (among Iranian universities)

The Nationwide Entrance Exam of  
Iranian Universities  
2015

Top 0.5% (among more than 180,000 contestants)

Kashani International Mathematics  
and Intelligence competition  
2009

1<sup>st</sup> place (among all Iranians living abroad), Kuwait City, Kuwait

## Main Courses

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All of the courses below are passed with 4/4 score:

Natural Language Processing  
Theory of Languages and Automata  
Computer Engineering  
Digital Image Processing(computer vision)

Data Structures  
Database Design  
principles of computational intelligence

Artificial Intelligence  
Introduction to Algorithms  
Robotics

## Skills

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#### Technical (proficient)

Python, Java, Spark(Scala), Cytoscape, Clementine, HTML, JavaScript, CSS, JetBrains(Pycharm, IntelliJ, Android Studio), Adobe Photoshop

#### Technical (familiar)

Django, C++, C,8086 Assembly, SQL, Arduino, Modelsim

#### Languages

Persian: Native

English: Fluent

IELTS: 7.5/9 (Listening: 7.5, Reading: 9, Speaking: 7, Writing: 6.5)

GRE: 310 (Quant: 168, Verbal: 142, Analytical: 4)

Arabic: Familiar

## Self Study and MOOC

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### **Personality and Its Transformation / Fall 2020**

University of Toronto(Audited, currently passing) – Instructor: Dr. Jordan B Peterson

### **Linear Algebra/ Fall 2020**

MIT (Audited, currently passing) – Instructor: Dr. Gilbert Strang

### **English Conversational Program / Fall 2020**

Western University

### **Computational Social Science Methods / Fall 2020**

University of California, Davis - Instructor: Dr. Martin Hilbert

### **Natural Language Processing with Attention Models / Fall 2020**

Deeplearning.ai - Instructor: Younes Bensouda Mourri and Łukasz Kaiser

### **Natural Language Processing with Classification and Vector Spaces / Fall 2020**

Deeplearning.ai - Instructor: Younes Bensouda Mourri and Łukasz Kaiser

### **Introduction to Data Science in Python / Spring 2020**

University of Michigan - Instructor: Dr. Christopher Brooks

### **Introduction to TensorFlow for Artificial Intelligence, Machine Learning, and Deep Learning / Spring 2020**

Deeplearning.ai - Instructor: Laurence Moroney

### **Fundamentals of Reinforcement Learning / Spring 2020**

University of Alberta, Alberta Machine Intelligence Institute – Instructor: Dr. Martha and Adam White

### **Becoming a peer reviewer Course / Winter 2020**

Elsevier Researcher Academy

### **Certified Peer Reviewer Course / Winter 2020**

Elsevier Researcher Academy

### **Introduction to Psychology / Fall 2019**

Coursera in corporation with Yale University - Instructor: Dr. Paul Bloom

### **Deep Learning / Spring 2019**

Graduate Course at IUST - Instructor: Dr. Mohammad Taher Pilehvar

### **Exploratory Data Analysis / Spring 2019**

Coursera in corporation with Johns Hopkins University (Audited) - Instructor: Dr. Roger Peng

### **Learning How to Learn / Spring 2019**

Coursera in corporation McMaster University & UCSD – Instructors: Dr. Barbara Oakley & Dr. Terrence Sejnowski

### **Sequence Models / Spring 2018**

Coursera in corporation with Deeplearning.ai (Audited) - Instructor: Prof. Andrew Ng

### **Big Data Analysis with Scala and Spark / Fall 2017**

Coursera in corporation with EPFL (Audited) - Instructor: Dr. Heather Miller

### **Data mining / Spring 2017**

Graduate Course at IUST - Instructor: Dr. Hossein Rahmani