

Danial Kamali

AI RESEARCHER · SOFTWARE ENGINEER

born on Sept 16th 1998

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Summary Of Qualifications

- Adequate ability and experience in working with libraries like Tensorflow2, Keras, OpenCV, Sklearn, Numpy.
- Ranked **1st** in the yearly evaluation of the CS department.
- Research experience in NLP(Tokenization) and CV(Facial Expression Recognition, Image Captioning).
- Communication skill and teamwork capabilities.
- **Only** Bachelor team leader in Data Mining lab.
- Top of the class in **Computer Vision** and **Deep Learning**.
- Good Learning ability and "Getting things done" attitude.

Education

IUST (Iran University of Science and Technology)

Tehran, Iran

B.S. IN COMPUTER ENGINEERING

Sept 2016 - March 2021

Ranked **3rd** among Iran Universities based on QS Ranking

GPA(Last 2 years): **3.87/4 (18.37/20)**

GPA : **3.39/4 (16.62/20)** Unofficial Transcript

Research Interests

- Machine Learning/Deep Learning
- Natural Language Processing
- Computer Vision/Image Processing
- Computational Intelligence

Honors & Awards

2021	Fully Funded Position Michigan State University, Western University of Ontario	IUST
2020	1st Yearly evaluation of CS department students	IUST
2016	4th IUST ACM contest	Iran
2015	Ranked among the top 0.2% of the candidates National Entrance Exam for Graduate Schools	Iran
2013	Qualified for the second phase Iran computer Olympiad	Iran
2013, 2014	Qualified for the second phase Iran mathematics Olympiad	Iran
2013	Qualified for Iran national team International Mathematics Competition	Iran
2012	Exceptional talent scholarship Salam high school	Iran
2012	Accepted in National Organization for Development of Exceptional Talents NODET exam	Iran

Academical Experience

Multi Agent Systems Lab

Tehran, Iran

MACHINE LEARNING RESEARCHER

Jun 2019 – Sept 2019

- Researched on **"Image Caption Generation"** and customized image captioning in Farsi.
- Gathered the Farsi image captioning dataset For the **first time** in Iran using the coco dataset.
- Trained the model using the **Attention** mechanism on the mentioned Dataset, using **Tensorflow** on Google Colab ([See Link](#)).

Data Mining(NLP) Lab

Tehran, Iran

NATURAL LANGUAGE PROCESSING RESEARCHER

Jun 2019 – Present

- Evaluated **"Farsi Sentences Tokenization"** and analyzed current Farsi tokenizers and wrote a survey paper on this area.
- Only Bsc leader in the Lab.

Skills

Programming	Python(most proficient), C/C++, JAVA, Node.JS, C# , LaTeX
AI Frameworks	Sklearn, Tensorflow, Keras, HuggingFace, Numpy, OpenCV, NLTK, Mallet
Frameworks and Tools	Django, Express, Flask, Unity, SQLBased, MongoDB
Language	Persian: MotherTongue Arabic: Intermediate English: Toefl IBT test score: 105 (R:29 L:29 S:23 W:24)
GRE	Test center got close due to Tehran quarantine

Publications

- Kamali, D., Amani, A., Janfada, B., & Minaie Bidgoli, B. (2021). Evaluation of Farsi Conventional Tokenizers. (In progress)

Teaching Experience

TA	Computer Vision	Sep 2020 - Feb 2021
Instructor	Fundamental Machine Learning	Feb 2020 - Aug 2020
TA	Computational Intelligence	Feb 2020 - Aug 2020
TA	Natural Language Processing	Feb 2020 - Aug 2020
Mentor	Software Engineering	Sep 2019 - Jan 2020
TA	Computer Architecture	Feb 2019 - Jun 2019
Mentor	Software Engineering	Jan 2019 - May 2019
TA	Database Design	Jan 2019 - May 2019
TA	Digital Logic	Sep 2018 - Jan 2019

Academic Projects

Facial Expression Recognition

- State of the art results on RAF-DB dataset.
- Close to state of the art on FER2013.
- Evaluating multiple vectorizing methods.
- Implementing various models like Histogram Networks, progressive ensemble learning using TF2 and Pytorch.

Memotion Analysis: MultiModal Image-Text classification

- Working on a task for an online competition on CodaLab ([See Link](#))
- Deep Learning course final Project which was the top-rated project of the semester. ([GitHub link](#))

Real-time AR Sudoku Solver

- Real-time video processing and digit recognition using pattern-matching and ANN .
- Backtracking to solve Sudoku and results augmented in the output.
- Final project of Computer Vision course which was the highest-rated project of the semester. ([GitHub link](#))

DeepLearning

- Seq2Seq MultiLanguage Translator([GitHub link](#))
- Image Classification For City Special Bus Line in Iran ([GitHub link](#))
- Disambiguation Word Embedding BERT([GitHub link](#))
- Text classification ([GitHub link](#))
- Tensorflow 2.0 implementation of multiple types of ANN ([GitHub link](#))

Natural Language Processing

- Character Classification in movies based on transcripts ([GitHub link](#))
- Simple persian phonetic sequence ambiguation prediction ([GitHub link](#))

Computational Intelligence

- Implementation of ANN using numpy.
- Function approximation using RBF (Radial Basis Function) and MLP.

Artificial Intelligence

- Iran House Price Prediction: ([Slides link](#))
- Implementing Reinforcement Learning in games like Chess
- Solving Pacman practical Projects of Berkeley University in the most of AI outlines such as Search Problems, Informed Search, CSP, Adversarial Search, Markov Decision Process, etc.([Github link](#))

Data Structure

- XML extreme data compressor using C++ language which was the best project of the semester.

Industrial Experience

Zibal

SOFTWARE ENGINEER

Tehran, Iran

Sept 2019 - June 2021

Besparma

SOFTWARE ENGINEER

Tehran, Iran

May 2018 - Sept 2018

Algorithm Pars

SOFTWARE ENGINEER

Tehran, Iran

Mar 2017 - May 2018