Danial Kamali

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

Michigan State University · *East Lansing, MI, USA*
PhD in Computer Science · *Jan 2022 - Expected Jan 2026*

Fully funded study

Research Interests

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

Honors & Awards

Year		Location
2020	**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 - Feb2021*
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

Besparma

Tehran, Iran

Software Engineer

May 2018 - Sept 2018

- NodeJs, Kafka, GRPC, MongoDB, SOAP, etc.

Algorithm Pars

Tehran, Iran

Software Engineer

Mar 2017 - May 2018

- C# ASP.NET, SQL, Git, etc.