# Ali Najafi

## Research Area

Natural Language Processing, Computer Vision, Deep Learning, MultiModal Learning, Machine Learning, Text Mining, MultiTask Learning.

## Education

2017–2021 Bachelor's Degree (Computer Engineering), University of Tabriz, Tabriz Iran, CGPA - 3.3/4.

Thesis Grade: 19/20 - 4/4

GPA of the last two years: 3.59/4.00

## Related Courses GPA - 4/4:

- Data Mining: A+ Artificial Intelligence: Α Computational Intelligence: A+ Algorithm Design: A+ Data Structure: **A**+ Database Design: A+ Software Engineering 1: A+ Advanced Programming: **A**+ Basics of Programming: **A+**
- 2014–2017 H.S. Diploma (Mathematics), High School of Ferdowsi, Tabriz Iran, CGPA 18.68/20.

## **Publications**

A Najafi, A Gholipour-Shilabin, R Dehkharghani, A Mohammadpur-Fard,
M Asgari-Chenaghlu ComStreamClust: A communicative multi-agent approach to text clustering in streaming data, Under Review, 2021

## Standardized Test Scores

July 2021 **IELTS (Academic)**.

Score: 7:

Listening 8 Writing 6.5 Speaking 7.5 Reading 6

## **Projects**

#### 2021 Movie Recommender System.

Contributions:

- Implemented a movie recommender system using item-based and user-based collaborative filtering
- The classifier predicts the score a user might give to a movie on a 1-5 scale.
- The model is trained on the Movielens dataset

#### 2020 Language Translation.

Al model for translating English to Italian.

Contributions:

- Implementing Transformer-based Model from scratch using Tensorflow v2
- Deploying the Translator with Django

#### 2020 Sentiment analysis using bert Tokenizer and CNN.

Contributions:

o Analyzing the sentiment of sentences using Bert Tokenizer and cnn models

#### 2020 Shahname (poem) Character Based Text Generation.

Generating poem using LSTM model

Contributions:

Using AI for fun and generating poem similar to Shahname's poems

## 2020 Kaggle Competition (SIIM-ISIC Melanoma Classification).

Contributions:

- Handling extremely unbalanced data
- Constructing MultiModal system
- Stacking and ensembling different models such as Random Forest and XGBoost to achieve better results
- Using transfer learning on pretrained models such as VGG19 and Xception

#### 2020 Music Genre Classification.

Classifying music genres based on their MFCC spectrogram

#### 2019 Simulated Self Driving Car.

Contributions:

- Developed using DQN (Reinforcement Learning based model)
- o Gaining the experience of using PYQT for building user experience

#### 2019 Landmark Detection on Dental Images.

Contributions:

- Detecting special landmarks on dental images
- VGG-face model used as pretrained model for solving this Task
- Multiple image augmentation applied on images

#### 2018–2019 Persian News Stream Clustering.

We implemented a news stream clustering algorithm and did topic modeling Contributions:

- Constructed a fully-customized Al system in a team of 6 engineers
- Implemented a news clustering system that did online topic modeling on streaming data

#### 2018 Silk Road Graph Analyzer.

Contributions:

- Solving TSP (Travelling Salesman Problem) using (Dynamic Programming)
- Solving TSP (Travelling Salesman Problem) using (AntColony)

# **Teaching**

November Git Workshop, University of Tabriz, Tabriz Iran.

2020 Contributions:

• Teaching Git and Github to freshmen

## Skills

## Programming Languages

Python, C#, Java, Scala, C/C++, JavaScript

## Programming Frameworks

Tensorflow, Keras, Pytorch, Django, ReactNative

## Programming Libraries

Numpy, Pandas, Scikit learn, Matplotlib, Seaborn, Tableau

DataBase Tools

MySQL

Other

Git, LaTEX, Linux

# Languages

Azeri Native

Persian Native

English Fluent

Arabic Intermediate

# Academic References

- Associate Prof. Mohammad Ali Balafar Department of Computer Engineering, University of Tabriz, Tabriz, Iran: balafarila@tabrizu.ac.ir
- Associate Prof. Rahim Dehkharghani Department of Computer Engineering, Isik University, Şile, Turkey: rahim.dehkharghani@isikun.edu.tr
- o Dr. Meysam Asgari-Chenaghlu Department of Computer Engineering, University of Tabriz, Tabriz, Iran: m.asgari@tabrizu.ac.ir