# Babak Behkamkia

#### Education

#### **IUST University (among the top 4 universities in Iran)**

Tehran, Iran

B.Sc. in Computer Science at Iran University of Science & Technology

2019 - 2023

- GPA: 3.79/4.0 (17.9/20.0 in Iranian Scale)
- Selected Courses: NLP(A+), Deep Learning(A+), Artificial Intelligence(A+), Computational Intelligence(A+), Computer Vision(A), Database Design(A+), Graph Theory(A+), Statistics(A+)

### Research Interests

Machine Learning

• Natural Language Processing

• GANs

Generative Models

# Research Experience

#### Image manipulating of a person based on detected personality from text

IUST University Jun 2023 - present

Bachelor Thesis - Supervisor: Dr. Sauleh Eetemadi

- Data Collection

- Data Generation by LLMs
- GAN Inversion

#### **Interpretable Fact Checking**

IUST NLP Lab

This work is a continuation of the Claim Extraction

Jul 2023 - present

- Extracting Atomic-Facts
- Developing a new evaluation metric

#### **GPT-Stance Detection**

**IUST NLP Lab** 

Supervisor: Dr. Sauleh Eetemadi - GitHub

Apr 2023 - Aug 2023

- Generating text with GPT-3
- Proposing a new dataset
- Proposing a new pipeline for Stance Detection

#### **Adversarial Stance Detection**

IUST NLP Lab

The full report of the VQA project is here

Feb 2022 - Sep 2022

- Adversarial Networks
- Topic invariant models
- Cross-target adaptation

#### Claim Extraction

**IUST NLP Lab** 

I helped a senior student with her bachelor's Thesis in this project - proposal

Feb 2022 - Jun 2022

- Sub-claim extraction from a complex claim
- Preparing a data set for this task
- Working with Large Language Models

#### **Multimodal Fake News**

**IUST NLP Lab** 

We searched for ways to evaluate the realness of news in which visual content was available.

Fall 2021

#### **Publications**

# Improving Few-Shot Stance Detection Performance with Contextual Data Generation Submitted GitHub

Authors: G. Mahmoudi, B. Behkamkia, S. Eetemadi

# Work Experience

#### **NLP and Machine Learning Intern**

DADMATECH

Robot User Detection - Supervisor: Dr. Sauleh Eetemadi

Dec 2021 - Aug 2022

- Working with BERT & BigBird
- Crawling Twitter
- Feature Extraction

# **Course Projects**

## **Personality Detection and Data Generation**

**IUST University** 

Natural Language Processing Course - GitHub

Spring 2023

Fine-tuning Large Language Models

- Working with Transformers

# Crack Detection

**IUST University** 

Fall 2022

Computer Vision Course - GitHub

Image Preprocessing

- Illiage Freprocessing
- Matching Key Points
- Morphology

**Covid-19 Prediction** 

- Using Pretrained U-net

#### **IUST University**

Deep Learning Course - GitHub

Fall 2022

- Image Preprocessing
- Data Augmentation
- Squeeze-Net

# Ranked Within the Top 0.3% in Iranian University Entrance Exam

July 2019

Mathematics and Physics majors

- Ranked 500 among 164000 students

**Olympiads** 2017 & 2018

Computer & Mathematics

- reaching the second stage

# **Skills**

**Awards** 

- Programming Languages: Python, C#, Dart
- · Libraries and Frameworks: Pytorch, TensorFlow, Scikit-Learn, OpenCV, Flutter, Django
- Environments and Tools: Git, Trello, Taskulu, Mendeley, LTEX

# **Teaching Experience**

#### **Teaching Assistant**

School of Computer Engineering

IUST University Sep 2020 - present

- Graph Theory Instructor: Dr. Farzaneh Ghayour Baghbani Fall 2023
- Computational Intelligence Instructor: Dr. Nasser Mozayani Fall 2022
- Fundamentals of Database Design Instructor: Dr. Hossain Rahmani Spring 2022 & Spring 2023
- Algorithms Design Instructor: Dr. Sauleh Eetemadi Spring 2022
- Theory of Languages Automata Instructor: Dr. Reza Entezari-Maleki Spring 2022
- Data Communication Instructor: Dr. Ahmad Akbari Azirani Spring 2022
- Data Structures Instructor: Dr. Sauleh Eetemadi Fall 2021
- Advanced Programming Instructor: Dr. Sauleh Eetemadi Spring 2021
- Fundamentals of Programming Instructor: Dr. Sauleh Eetemadi Fall 2020

InstructorIUST UniversitySchool of Computer EngineeringSummer 2023

- Machine Learning

#### Selected Online Courses

- GANs Specialization Certificate
- Deep Learning Specialization Certificate

## **Hobbies**

Football
YouTube
GYM
Chess

#### Languages

Persian: NativeTurkish: Native

English:

- IELTS: Overall: 7.5

Listening: 8.5, Reading: 7.5, Writing: 6.5, Speaking: 6.5

### References

#### Dr. Sauleh Eetemadi

Iran University of Science & Technology

Assistant Professor at Department of Computer Engineering sauleh@iust.ac.ir

#### Dr. Naser Mozayani

Iran University of Science & Technology

Associate Professor at Department of Computer Engineering mozayani@iust.ac.ir

## **Majid Zarharan**

**Dublin City University** 

Ph.D student at Dublin City University majid.zarharan@adaptcentre.ie