

# HOSSEIN KHALILIAN

## Data Scientist

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## EXPERIENCE

### Data Scientist

#### Mom Fertility Center

📅 November 2021 – Current 📍 Tehran

- Designing and Improving Automatic Speech Recognition Models for Persian (WER: 7.4% for persian common voice, Improvement: 28%)
- Developing News Article Recommendation Systems (Increasing website traffic by 70%)
- Text Summarization and Keyword Extraction using Sentence-Transformers
- Solving Item Matching Problem for Products using Representation Learning and Vector Databases (Calculation time 28ms for 6 million products)
- Deploying label studio for data labeling and designing a pipeline for active learning
- Designing APIs for the projects and deploying them using docker

### ML Engineer

#### Mofid Securities

📅 April 2021 – September 2021 📍 Tehran

- Gathering, cleaning, and preprocessing data for training models
- Designing and training models for anomaly detection in images using knowledge distillation techniques (accuracy: 92%, improvement: 26%)
- Converting and compressing trained models for improving inference time on cpu (improvement: 88%)
- Dockerizing projects and designing APIs for them

## EDUCATION

### Amirkabir University of Technology

#### M.Sc. Computer Engineering - Artificial Intelligence

📅 Sep 2018 – Sep 2021 📍 Tehran

- GPA: 16.91/20
- Thesis: Distributed Deep Learning for Big Data
- 4th Rank among 53 Students

### Isfahan University of Technology

#### B.Sc. Information Technology (Double Major)

📅 Sep 2014 – Sep 2018 📍 Isfahan

- GPA: 18.08/20
- 1st Rank among 75 Students

### Isfahan University of Technology

#### B.Sc. Electrical Engineering - Communication

📅 Sep 2013 – Sep 2018 📍 Isfahan

- GPA 18.08/20
- Top 10% among 120 students

## PROFESSIONAL SKILLS

Python (NumPy, Pandas, Transformers, Huggingface)	●●●●●
PyTorch & Tensorflow	●●●●●
Machine Learning	●●●●●
Deep Learning	●●●●●
NLP	●●●●●
ASR	●●●●●
Recommender Systems	●●●●●
Semantic Search	●●●●●
Representation Learning	●●●●●
Deep Reinforcement Learning	●●●●●
Graph Neural Networks	●●●●●
SQL & NoSQL	●●●●●
Mathematics & Statistics	●●●●●
Linear Algebra	●●●●●
Problem Solving	●●●●●
Data Visualization	●●●●●
gRPC & FastAPI	●●●●●
Docker	●●●●●
Git	●●●●●

## LANGUAGES

Persian	●●●●●
English	●●●●●

## PROJECTS

📅 May 2021 – July 2021

- Liveness Detection using Knowledge Distillation techniques for Anomaly Detection

📅 September 2019 – July 2021

- Solving Placement Problem for Deep Neural Networks using Deep Reinforcement Learning and Graph Representation Learning techniques

📅 October 2017 – June 2019

- Detection of Earth Dam Breaching by image processing techniques

📅 June 2017 – June 2018

- Design and Implementation of VoIP Gateway

## REFERENCES

Dr. Maryam Amir Haeri

@ University of Twente

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Relation: Master thesis supervisor

Dr. Amir Hossein Payberah

@ KTH Royal Institute of Technology

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Relation: Master thesis advisor