HOSSEIN KHALILIAN

Data Scientist

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O github.com/hossein-khalilian

EXPERIENCE

Data Scientist

Mom Fertility Center

Movember 2021 - Current

▼ Tehran

- Designed and improved automatic speech recognition models for Persian, achieving a WER of 7.4% for Persian common voice and an overall improvement of 28%
- $\bullet\,$ Developed news article recommendation systems, increasing website traffic by 70%
- Conducted text summarization and keyword extraction using Sentence-Transformers
- Solved item matching problems for products using representation learning and vector databases, achieving a calculation time of 28ms for 6 million products
- Deployed label studio for data labeling and designed a pipeline for active learning
- Designed APIs for the systems and dockerized projects

ML Engineer

Mofid Securities

April 2021 - September 2021

- **♀** Tehran
- Gathered, cleaned, and preprocessed data for training machine learning models
- Designed and trained models for anomaly detection in images using knowledge distillation techniques, achieving an accuracy of 92% and an improvement of 26%
- Converted and compressed trained models for improving inference time on CPU, resulting in an 88% improvement
- Dockerized projects and designed APIs for them

EDUCATION

Amirkabir University of Technology

M.Sc. Computer Engineering - Artificial Intelligence

◊ 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)

♀ Isfahan

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

Isfahan University of Technology

B.Sc. Electrical Engineering - Communication

♀ 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



LANGUAGES

Persian English

Docker

Git



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 Representaion Learning techniques
- **M** 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

Relation: Master thesis supervisor

Dr. Amir Hossein Payberah

Relation: Master thesis advisor