HOSSEIN KHALILIAN

Data Scientist

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EXPERIENCE

Data Scientist
Mom Fertility Center

📅 November 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%
- 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

📅 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 Representaion 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