

# HOMAYOUN MORADI

Machine Learning and  
Computer Vision Researcher

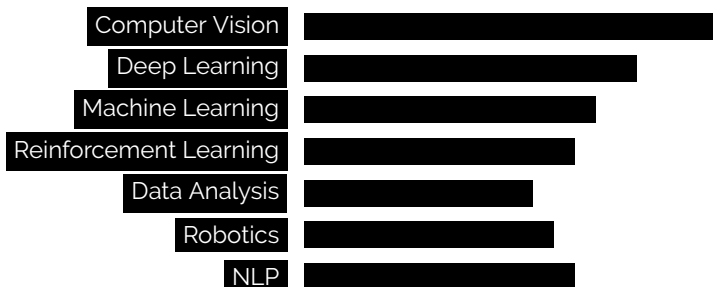
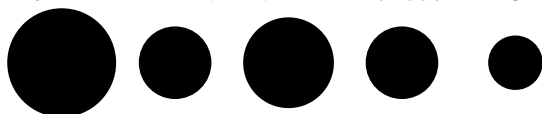
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## WHO AM I?

Experienced Head of R&D with a demonstrated history of working in Machine Learning and Computer Vision fields. Skilled AI Researcher with a Master of Science from University of Tehran.

Pytorch JavaScript Opencv Pandas MongoDB



## EXPERIENCE

2021 – Presnet	<b>AI Developer</b> Develope AI-based Products Which Are Used by Canadian Startups.	Odyssey Startup Studio
2020 – 2022 part time	<b>Senior AI Developer</b> Smart Smile Design Based-on Computer Vision Techniques.	ISAA Project
2019 – 2021 part time	<b>Computer Vision Scientist</b> Knowledge Extraction and Intention Recognition Using Cutting Edge AI Technologies.	SUSLIB
2018 – 2020 part time	<b>Head of Computer Vision Team</b> Multi-Agent and Autonomous Vehicles 3D Perception, Road Scene Understanding and Analysis of Surveillance Videos.	Control and AI Lab - IUST
2016 – 2018	<b>Co-Founder</b> The First Online 3D Printing Service and Social Marketplace Based in Tehran. We Made an Online Platform That Provides 3D Printing Services by Connecting Customers and Vendors.	3DFAST
2015 – 2016	<b>Control Engineer</b>	CETEC

## PROJECTS

2021	2020	2019
COVID-19 Persian Tweets Analysis Persian OCR Table Structure Recognition Face Spoofing Detection Music Metadata and Text Analysis	tsetmc + Sahamyab Data Analysis Face Detection and Recognition Human Action Recognition Image Retrieval Scene Multi-Label Classification	Fusion-based 3D Object Analysis Aerial Image Segmentation Supermarket Product Counter Multi Object Tracking

## EDUCATION

2019 – Presnet	<b>Master of Science - MS, Artificial Intelligence GPA:19.23</b> Advisor: Prof. Behzad Moshiri and Dr. Mehdi Tale Masoole Thesis: Human-Robot Interaction Using Soft/Hard Information Fusion, Case Study: NAO Robot Activities: -Research Assistant at NBIC, Supervised by Dr. MohammadReza A. Dehaqani, Human Action Classification Using EEG Signal Processing -Teaching Assistant for Big Data, Dr. Masoud Asadpour - Spring 2021 -Teaching Assistant for Information Theory and Learning, Dr. Pooya Shariatpanah, Dr. Maryam Sabaghian - Fall 2021	University of Tehran
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2016 – 2019

**Master of Business Administration - MBA, Finance**

Kharazmi University

2012 – 2016

**Bachelor's Degree, Control Engineering**

Iran University of Science and Technology (IUST)

Advisor: Prof. Aliakbar Jalali

Thesis: IoT for Smart Cities: Use Cases and Implementation Strategies

Activities: Teaching Assistant for Signal and Systems, Prof. Aliakbar Jalali - Fall 2019

## PAPERS

ICRoM 2021

**Robots Learn Visual Pouring Task Using Deep Reinforcement Learning with Minimal Human Effort**  
H.Moradi, M.T.Masouleh, B.Moshiri

The entire pipeline for teaching a robot to perform the visual pouring task is addressed with a minimal human supervision. The reinforcement learning approach is employed without the use of reward engineering where the reward function is approximated by a Convolutional Neural Network.

## HONORS

- First Rank in DataDays2021 Challenge. Design a Recommender System Based-on Hybrid Approach for torob.com
- 5th Rank in DigiCup2021 (Data Science).
- 33th Rank in the Iranian University Entrance Exam for master's degree in Artificial Intelligence.

## OTHER TECH SKILLS

- Familiar with SQL and Redis.
- Robotics Operating System (ROS).
- 3Build and Deploy Machine Learning Web Apps Using JavaScript.
- Working with Deep Learning Optimization Tools (TensorRT, ONNX)
- Build AI Services Using Docker and ML Serving Tools Like Torch-Serve, Triton, Ray.
- Familiar with Generative Networks, Transformers, and Audio Processing Techniques.
- Familiar with Useful AI Frameworks like HuggingFace, stable-baselines3, RLlib, MMLab, Gensim, Spacy, Kornia, JAX, ... .

## REFERENCES

**Prof. Behzad Moshiri (moshiri@ut.ac.ir)**  
My Master's Thesis Supervisor.

Professor in University of Tehran

**Dr. Mehdi Tale Masouleh (m.t.masouleh@ut.ac.ir)**  
My Master's Thesis Supervisor.

Associate Professor in University of Tehran

**Dr. Mohammad Hossein Rohban (rohban@sharif.edu)**  
Scientific Supervision in ISAA Project.

Assistant Professor in Sharif University

**Dr. Saeed Shamaghdari (shamaghdari@iust.ac.ir)**  
Supervisor of Control and AI lab inIran University of Science and Technology (IUST).

Associate Professor in IUST

**Amir Houieh (amir@suslib.com)**

Co-Founder of SUSLIB