ALIREZA HOSSEINI

AI Developer

Website
910 9694 866
Tehran, Iran
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arh77

RESEARCH INTERESTS

- Deep Learning, Computer Vision
- Saliency Map Prediction, Cognitive science
- Implicit Neural Representation
- Generative Models, OCR

SKILLS

Languages: Python, MATLAB, HTML, C/C++.

AI Tools: PyTorch, OpenCV, TensorFlow, NPM.

Others: Docker, Git, Linux, AI Model Serving, Fast-API.

EDUCATION

9/2022 - now **Master of Science - MS, Telecommunication Systems** — **University of Tehran**
Grade: 18.19/20. Thesis: Analyzing and improving the performance of networks for predicting human visual saliency map in images and investigating their use in the field of neuromarketing

9/2017 - 3/2022 **Bachelor of Science - BS, Electrical and Electronics Engineering** — **Iran University of Science and Technology**
Grade: 17.03/20. Thesis: Diagnosing and Detection and of internal combustion engine accessories belt for health monitoring and performance investigation; a Machine Vision approach

9/2013 - 9/2017 **High School Diploma, Mathematics** — **National Organization for Development of Exceptional Talents (Sampad)**

PUBLICATIONS

Arxiv 2024 **Brand Visibility in Packaging: A Deep Learning Approach for Logo Detection, Saliency-Map Prediction, and Logo Placement Analysis** — **Github**
- **Alireza Hosseini**, Kiana Hooshanfar, Pouria Omrani, Reza Toosi, Ramin Toosi, Zahra Ebrahimian, Mohammad Ali Akhaee
- Submitted to International Journal of Computer Vision(IJCV)

WACV 2024 **INCODE: Implicit Neural Conditioning with Prior Knowledge Embeddings** — **Github**
- Amirhossein Kazerouni, Reza Azad, **Alireza Hosseini**, Dorit Merhof, Ulas Bagci

ICWR 2023 **Farsi CAPTCHA Recognition Using Attention-Based Convolutional Neural Network**
- **Alireza Hosseini** , Matine Hajyan, Ramin Toosi, Mohammad Ali Akhaee

ASE 2022 **Machine vision–based measurement approach for engine accessory belt transverse vibration based on deep learning method**
- Ashkan Moosavian, **Alireza Hosseini**, Seyed Mohammad Jafari, Iman Chitsaz, Shahriar Baradaran Shokouhi
- Journal: Automotive Science and Engineering 2022

ER 2022 **Development of Machine Vision System to Track Movement of an Engine Timing Belt Tensioner Based on Deep Neural Network**
- **Alireza Hosseini**, Moosavian Ashkan, Saeed Javan, Shahriar B Shokouhi
- Journal: The Journal of Engine Research 2022

EXPERIENCE

7/2022 – now **Artificial Intelligence Developer** — **Adak Vira Iranian Rahjoo (AVIR)**
- Saliency-map prediction, Saccade sequence prediction, OCR, TTS, ASR, RAG, Motion Capture, Pose Estimtion, Object Detection, Data analysis, Wav2lip, Document Scanner Module, Cartoonize Image and video, Fast-API, Triton, Dockerize modules, etc

1/2023 – 11/2023 **Artificial Intelligence Developer** — **University of Tehran**
- Project: Eye Tracking , Neuromarketing
- Supervisor: Dr. Mohammad Ali Akhaee, Associate Professor at the University of Tehran

12/2021 – 09/2022 **Artificial Intelligence Developer** — **University of Tehran**
- Project: Persian HandWritten OCR
- Supervisor: Dr. Mohammad Ali Akhaee, Associate Professor at the University of Tehran

7/2021 – 7/2022 **Computer Vision Researcher** — **Iran Khodro Powertrain Company (IPCO)**
- Detection and diagnosis of internal combustion engine accessories belt - Deep learning Aproaches

TEACHING EXPERIENCE

Spring 2024	**Machine Learning - Dr. A. Dehaqani, Dr. Tavassolipour**	**University of Tehran**
Spring 2024	**Blind Source Separation - Dr.Akhavan**	**University of Tehran**
Fall 2023	**Machine Learning - Dr. N Araabi, Dr. A. Dehaqani, Dr. Tavassolipour**	**University of Tehran**
Spring 2022	**Advance Logical Circuit - Dr. Mirzakuchaki**	**Iran University of Science and Technology**
Fall 2021	**Logical Circuit - Dr. Mirzakuchaki**	**Iran University of Science and Technology**

RELATED COURSES

Fall 2023 **Analysis and Design of Deep Neural Networks [Github]** **University of Tehran**
- Dr. Kalhor and Dr. N Araabi, Grade: 19.6/20

Fall 2023 **Deep Generative Models [Github]** **University of Tehran**
- Dr. Tavassolipour and Dr. Sadeghi, Grade: 19.6/20

Spring 2022 **Machine Learning [Github]** **University of Tehran**
- Dr. A. Dehaqani, Dr. Tavassolipour, Grade: 20/20

Fall 2022 **Blind Source Separation** **University of Tehran**
- Dr. Akhavan, Grade: 18.6/20

Fall 2022 **Deep Learning** **University of Tehran**
- Dr. Kalhor, Grade: 18.5/20

Fall 2022 **Information Theory and Learning** **University of Tehran**
- Dr. Sabbaghian, Grade: 18.9/20

Spring 2021 **Digital Signal Processing** **Iran University of Science and Technology**
- Dr. B Shokouhi, Grade: 20/20

CERTIFICATIONS

10/2023	**Introduction to Generative AI**	**Coursera**
10/2021	**Build Basic Generative Adversarial Networks (GANs)**	**Coursera**
10/2021	**Fundamentals of Project Planning and Management**	**Coursera**
10/2021	**Successful Negotiation: Essential Strategies and Skills**	**Coursera**
08/2021	**Deep Neural Networks with PyTorch**	**Coursera**
08/2021	**Advanced Computer Vision with TensorFlow**	**Coursera**
06/2021	**Deep Learning A-Z™: Hands-On Artificial Neural Networks**	**Udemy**
04/2021	**Complete Python Bootcamp from Zero to Hero in Python**	**Udemy**

LANGUAGES

English - Professional working proficiency, **Persian** - native