MOHAMMAD REZA NADERI

Computer Vision Researcher

M.Sc. in Electrical and Computer Engineering

CONTACT

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Shahinshahr, Isfahan, Iran

Mohammadreza naderi

Mohammadrezanaderi4

PROGRAMING

- C
- C++
- Matlab
- Python

I'm interested and skilled on:

- Pytorch
- Tensorflow

LANGUAGES

English

Persian

SUMMARY

A proficient AI developer, I recently earned my master's degree in System Telecommunication Engineering from Isfahan University of Technology, specializing in Generative Adversarial Networks (GANs) and transformers. My research encompassed diverse applications, such as medical image segmentation, image inpainting, image retargeting, image super-resolution, and domain adaptation. Renowned for my coding expertise, I am now actively pursuing a PhD candidate position to further advance my studies in the expansive realm of AI, particularly focusing on computer vision tasks.

EDUCATION

M. Sc. In System Telecommunication Engineering

Isfahan university of technology | 2019-2022 | Isfahan, Iran

- GPA: 17.14 out of 20
- Supervisor: Professor Dr. Shadrokh Samavi
- Research on: Image Processing, Domain Adaptation, Generative AI, Vision Transformers

B. Sc. In Electrical Engineering

Shiraz university of technology | 2015-2019 | Shiraz, Iran

- GPA: 18.81 out of 20
- Ranked first between the electrical engineering students
- Honored as best students of the university

PUBLICATIONS AND PROJECTS

SFI-Swin: Symmetric Face Inpainting with Swin Transformer by Distinctly Learning Face Components Distributions. (2024)
MohammadReza Naderi, MohammadHossein Givkashi, Nader Karimi, Shahram Shirani, and Shadrokh Samavi.

- Arxiv version: https://arxiv.org/abs/2301.03130
- Project page: https://github.com/mohammadrezanaderi4/SFI-Swin
- Multimedia tools and applications, Springer

Supervised deep learning for content-aware image retargeting with fourier convolutions. (2024)
MohammadHossein Givkashi, MohammadReza Naderi, Nader Karimi, Shahram Shirani, and Shadrokh Samavi.

- Arxiv version: https://arxiv.org/pdf/2306.07383
- Multimedia tools and applications, Springer

Dynamic-Pix2Pix: Noise Injected cGAN for Modeling Input and Target Domain Joint Distributions with Limited Training Data.
MohammadReza Naderi, Nader Karimi, Ali Emami, Shahram Shirani, and Shadrokh Samavi. (2023)

- Arxiv version: https://arxiv.org/abs/2211.08570
- Biomedical Signal Processing and Control, Elsevier

MOHAMMAD REZA NADERI

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Professional at:

Idea person

Team work

Team management

Fast typing

Professional Coding

OS PREFERENCE

Windows

Linux

mac OS

PUBLICATIONS AND PROJECTS

Aesthetic-aware image retargeting based on foreground–background separation and PSO optimization (2024).
MohammadReza Naderi , Mohammad Hossein Givkashi, Nader Karimi, Shahram Shirani, and Shadrokh Samavi.

- Arxiv version: https://arxiv.org/abs/2209.04804
- Multimedia tools and applications, Springer

Color image segmentation using multi-objective swarm optimizer and multi-level histogram thresholding (2022).
MohammadReza Naderi Boldaji, and Samaneh Hosseini Semnani.

- Springer version: https://link.springer.com/article/10.1007/s11042-022-12443-9
- Multimedia tools and applications, Springer

Focal-UNet: UNet-like Focal Modulation for Medical Image Segmentation. (2023)
MohammadReza Naderi, MohammadHossein Givkashi, Fatemeh Piri, Nader Karimi, and Shadrokh Samavi.

- Arxiv version: https://arxiv.org/abs/2301.03130
- Project page: https://github.com/givkashi/Focal-Unet

MSGDD-cGAN: Multi-Scale Gradients Dual Discriminator Conditional Generative Adversarial Network. (2021)
MohammadReza Naderi, Zahra Nabizadeh, Nader Karimi, Shahram Shirani, and Shadrokh Samavi.

- Arxiv version: https://arxiv.org/abs/2109.05614

RESEARCH AREAS

Medical Image Analysis:

- Ultrasound image segmentation
- CT scan image segmentation
- MRI segmentation

Image Inpaiting:

- Transformers
- Generative adversarial networks

Image Segmentation:

- Natural image segmentation using meta-heuristic algorithms

Image Re-targeting:

- Natural image re-targeting using meta-heuristic algorithms
- GANs

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Hobbies

- Gaming
- Gym
- Camping

RESEARCH AREAS

Image Synthesising and Domain Adaptation

- Cycle Generative Adversarial Networks
- Variational Auto Encoders

Proficient in utilizing:

- Generative Adversarial Networks,
- Transformers
- Variational Auto Encoders

REFERENCES

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