

Mehdi Rabiee

Highly experienced and impactful AI Software Developer with a strong background in software development, artificial intelligence, and machine learning. Holding both a Master's degree in Electrical Engineering and a Bachelor's degree in Biomedical Engineering, I bring a comprehensive knowledge base to the field. Throughout my career, I have successfully led software teams and developed cutting-edge solutions in image processing, generative AI, and 3D image processing. My expertise lies in leveraging advanced technologies to create innovative solutions that drive success in the ever-evolving landscape of artificial intelligence.

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WORK EXPERIENCE

Freelancer

Software Engineer Jan 2021 - Present

- Artificial Intelligence software development in Image Processing
- Object Detection using classic algorithms and YOLO
- Facial and Ear Landmark Detection
- 3D Image Processing and Mesh Reconstruction
- Fitting Mesh to Morphable Models

KarizTeb Lotus

Software engineer Dec 2018 - Jul 2023

- Design and implement Ophthalnet (network based software solution for ophthalmic devices EMR) using AI and deep learning algorithms

Research Center for Developing Advanced Technologies (RCDAT)

Software Development Manager May 2007 - May 2019

- Project management and software development for more than 10 projects in the field of Artificial Intelligence
- Speech Processing (Speech Recognition, Speaker Identification, Text to Speech, ...)
- Image Processing (Face Detection and Recognition, OCR, ...)

Niroom Research Institute

Researcher and software Developer May 2005 - Dec 2005

- Sensor Fault Detection in Gas Turbines using MLP neural networks

Iran Research Center of Science and technology

Software Developer and Microcontroller Board Designer Jun 2001 - Dec 2002

- Incorporating in autonomous vehicle project
- Writing Control program on PC, developing decision algorithms
- programming microcontroller board on the vehicle to receive commands from pc and send proper commands to actuators

EDUCATION

Amirkabir University of Technology

Master of Science - Electrical and Electronic Engineering - 17.05 GPASep 2003 - Jul 2006

- Thesis: Network Congestion control with Type-2 fuzzy algorithms

Bachelor of Science - Biomedical Engineering - 16.27 GPA

Sep 1998 - Jul 2003

- Thesis: Design and Production of a Ultrasonic Distance Meter

PROJECT

AvatarPlus

2021 - 2023

- 3D facial scan (using True-Depth and Lidar Sensors in IOS), Deep Learning Facial Segmentation on 2D images, 3D Camera position and translation mapping, match RGBD frames with odometry, create 3D face or head model using Open3D, Fit to deformable models such as Flame Face Model using Pytorch3D

CustomObject

2022

Camera Calibration, Shape Detection, Pose Detection, Object Detection with classic and AI-based methods, Yolo Training for Custom Object Detection in Image and Video

OphthalNet

2021 - 2022

- Smart Data Extraction from Ophthalmic Exam Reports, Automatically gathering outputs of various ophthalmic devices and collect them at the server, Extract Information like Patient Info, Exam Date, Exam Numerical Outputs from scan reports (PDFs) using OCR, Dashboard for View, Edit, Filter, Search, Compare Exams, Add Diagnostic Comments, And ability to run complex queries on data and even get output for Deep Learning Based Tasks

Rokhsar

2019

- Face Detection and Recognition application in large scale implementing exact and approximate similarity search algorithms

Shenava

2010 - 2018

- Persian Speech Recognition and Dictation using Sphinx, SVM, HMM and Also using Deep Learning Approaches such as Mozilla DeepSpeech

Sensor Fault Detection in Gas turbine using Neural Networks

2007 - 2008

- use redundancy in multiple sensor data to detect sensor faults and guess the correct value of sensor using neural networks to learn correlation between sensor values and predict new value of each sensor according to other sensors data

SKILLS

Deep Learning ●●●●● Image Processing ●●●●● Generative AI ●●●●●
Python ●●●●● C, C++ ●●●●● .Net Programming ●●●●●

- Object Detection
- 3D Reconstruction
- Pytorch3d
- OpenCV
- Python
- Web Service
- Containerization