

Mehrdad Mohammadian

 Website  GitHub  LinkedIn  mehrdad.mhmdn@gmail.com  +989372135828

Education

B.Sc in Computer Engineering, Islamic Azad University

2018 - 2022, Mashhad-Iran

Thesis: Anxiety prediction web app using deep learning approach based on Taylor Manifest Anxiety Scale.

Thesis Grade: (20/20 - 4/4)

Supervisor: Dr. Shabnam Shadroo  GitHub  WebApp

Overall GPA: 17.53/20 (3.497/4)

Last two years GPA: 4/4

- **Related courses:** Computer Vision (20/20)  GitHub, Artificial Intelligence and Expert Systems (19.5/20), Computational Intelligence (20/20), Languages and Speech Processing (20/20), Information Retrieval and Web Searching (20/20)  GitHub, Software Engineering (20/20), Algorithms Design (18/20)

Research Interests

- Computer Vision
- Natural Language Processing
- AI in healthcare
- Deep Learning
- Machine Learning
- Data Science

Research Experience

Research Assistant Training Student, Linnaeus University

Oct 2021 - July 2022, Sweden (Remote)

Research on Persian font recognition problems using convolutional neural networks.








- **Supervisor:** Dr. Neda Maleki  **Tools:** Python, TensorFlow, GNU/Linux, Google Colab
- **Paper:** Mehrdad Mohammadian, Neda Maleki, Tobias Ohlsson, Fredrik Ahlgren, Persis: A Persian Font Recognition Pipeline Using Convolutional Neural Networks,  ICCKE 2022 (Submitted)

Teaching Experience

Instructed Workshops and Webinars, Islamic Azad University

Sep 2021 - July 2022, Mashhad-Iran

While being a main member in the Scientific Association of Computer Engineering department, I instructed the following workshops/webinars:

- Webinar: An introduction to using cloud services for ML/DL projects  slides  video
- Workshop: how to build a website with GitHub Pages (Git, Jekyll, Hugo)  slides
- Webinar: An Introduction to Open Source and GitHub  slides  video
- Webinar: Tips & guides for new students of the computer engineering department  slides  video

Skills

Machine Learning Tools: TensorFlow/Keras, Scikit-Learn, RapidMiner, Numpy, Pandas, Matplotlib

Programming Languages: Well skilled in Python, skilled in: MATLAB, C++, Golang, SQL, HTML, CSS

Developing Tools: Git, FastAPI, Docker, Streamlit, Jupyter Notebook, VS Code

Operating Systems: GNU/Linux, Windows **Other Tools:** \LaTeX , Overleaf, PhotoShop, Figma

Selected Projects

Makeup by using deep learning  GitHub  WebApp

Apply different hair and lipstick color on your face, before real makeup (U-Net, Color transformation).

Parkinson's disease detection by using deep learning  GitHub

A few-shot learning method for detecting Parkinson's disease using wave sketch images.

Search between the objects in an image  GitHub  WebApp

A tool for searching between the objects in an image using a query string (YOLOv5 & Open AI CLIP).

Portrait painting recommendation system  GitHub  WebApp

Developed a recommendation system for portrait paintings using deep learning (MobileNet & WikiArt dataset).

Jami  GitHub

A simple cross platform GUI for playing some musical instruments, written in Golang.

Work Experience

Deep Learning Researcher, Shenasa.ai

Mar 2022 - now, Tehran-Iran (remote)

Research on keyword extraction methods and develop a web service for exploring documents by keywords.

Research on face anti-spoofing methods to build an authentication system.

- **Investigated methods:** TF-IDF, Rake, Yake, Top2Vec, BERTop, Fast Text, SBERT, KeyBERT
- **Tools:** Python, FastAPI, GNU/Linux, MySQL, Git

Computer Vision Intern, Veerasense

Aug 2021 - Sep 2021, Mashhad-Iran

Investigated & examined CNN architectures such as YOLO, SSD, and CenterNet in the object detection area.

- Published fixed version of the CenterNet model , for running on Google Colab GPUs and making some experiments with different backbones on custom datasets. [🔗 GitHub](#)

Back-End Developer, Profile Digital

Apr 2019 - Mar 2020, Mashhad-Iran

The Profile is a social network for Persian language specialists. Back-end infrastructure services were developed and maintained using micro-service architecture.

- **Developed Services:** search, recommender, and user profile.
- **Tools:** Golang, Python, Mongo DB, Elastic Search DB, Web Scraping, GNU/Linux, Git

Honors and Awards

Accepted into the Neuromatch Deep Learning Summer School, which is based in the USA.

Top 5% user among Iranian GitHub users for number of contributes in other public repositories [🔗 link](#)

Received certificates to answer **Harvard University Puzzle Day** events (CS50):

- Solved 5/9 in apr 2022 [🔗 certificate](#) Solved 6/8 in sep 2020 [🔗 certificate](#) Solved 5/8 in apr 2020 [🔗 certificate](#)

First place in the Rokad entrepreneurship event and **received a gold coin** as a reward. Presented the idea of an e-learning system specially for high school students called "Class Plus". [🔗 certificate](#)

Online Courses

Generative Adversarial Networks [🔗 Diginext Academy, certificate](#)

Jun 2022

Deep Learning and Computer Vision [🔗 DigiNext Academy, certificate](#) [🔗 GitHub](#)

Mar 2022

Machine Learning in Python with Scikit-Learn (official) [🔗 france université numérique, certificate](#)

Jul 2021

Machine Learning [🔗 Coursera, certificate](#)

Oct 2020

AI Fundamentals with Python [🔗 Datacamp, certificate](#)

May 2020

Extracurricular Activities

Main Member of the Scientific Association, Islamic Azad University

Sep 2021 - July 2022, Mashhad-Iran

As a main member of the CSAIAUM, I contributed to the following activities:

Instructed and organized workshops/webinars, Managed GitHub & social media, collaborated to create content

Machine Learning Course by Andrew Ng, Translation

Sep 2020 - Dec 2020, Mashhad-Iran

Published notes and translated contents while completing this course. Till this moment **10K unique user with 21K session** visited the website and average duration of the reading contents is **5min 27sec**. [🔗 website](#) [🔗 GitHub](#)

Languages

Persian: Native

English: IELTS (will be taken soon)

References

Dr. Mehrdad Jalali

Karlsruhe, Germany

Associate Professor & scientist at Karlsruhe Institute of Technology (KIT)

Editor of Materials Today's Communication Journal (Elsevier)

Associate Professor at Islamic Azad University

✉ mehrdad.jalali@kit.edu 📞 +49 721 608-28909 [🎓 Google Scholar](#) [in LinkedIn](#)

Dr. Shabnam Shadroo

Mashhad, Iran

Assistant Professor & Director of Computer Engineering Scientific Association at Islamic Azad University

✉ sh_shadroo@mshdiau.ac.ir 📞 +98 915 521 3459 [🎓 Google Scholar](#)

Dr. Neda Maleki

Postdoctoral Research Fellow at Linnaeus University

Kalmar, Sweden

✉ neda.maleki@lnu.se 📞 0762-30 35 80 [🎓 Google Scholar](#) [in LinkedIn](#)

Alireza AkhavanPour

CTO at Shenasa.ai Company

Tehran, Iran

✉ akhavan@shenasa.ai 📞 +98 937 244 4775 [🎓 Google Scholar](#) [in LinkedIn](#)