

# Mehrdad Mohammadian

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## Education

**B.Sc in Computer Engineering** at Azad University, Mashhad Branch

Sep 2018 - July 2022, Mashhad-Iran

- **CGPA:** 17.53/20 (3.5/4)      **Last two years GPA:** 4/4
- **Thesis Grade:** 20/20 (4/4)      **Supervisor:** Dr. Shabnam Shadrou
- **Thesis:** Anxiety prediction using deep learning [GitHub](#) [Web App](#)
- **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) [more](#)

## Research Interests

- Convolutional Neural Networks
- Generative Adversarial Networks
- Machine Learning
- Recurrent Neural Networks
- AI in healthcare
- Data Science

## Research Experience

**Research Assistant Training Student** at Linnaeus University

Oct 2021 - July 2022, Kalmar-Sweden (remote)

- **Research:** solving Persian font recognition problem using CNNs.
- **Tools:** Python, TensorFlow, GNU/Linux, Google Colab, Git
- **Supervisor:** Dr. Neda Maleki
- M. Mohammadian, N. Maleki, T. Ohlsson, F. Ahlgren, "Persis: A Persian Font Recognition Pipeline Using Convolutional Neural Networks", 2022 12th International Conference on Computer Engineering and Knowledge (ICCKE) (Under review) [ICCKE](#) [abstract](#)

## Teaching Experience

**Instructor** at Scientific Association of Azad University

Sep 2021 - July 2022, Mashhad-Iran

- Instructed the following workshops and webinars in the scientific association of the computer engineering department:
- An Introduction to Open Source and GitHub [slides](#) [video](#)
- How to build a website with GitHub Pages (Git, Jekyll, Hugo) [slides](#)
- An introduction to using cloud services for ML/DL projects [slides](#) [video](#)
- Tips & guides for new students of the computer engineering department [slides](#) [video](#)

## Technical Skills

- **Machine Learning:** TensorFlow/Keras, Scikit-Learn, RapidMiner, NumPy, Pandas, Matplotlib
- **Programming Languages:** Skilled in Python3. Familiar with: MATLAB, C++, Golang, SQL, HTML, CSS
- **Development Tools:** Git, FastAPI, Docker, Streamlit, Jupyter Notebook
- **Other Tools:** GNU/Linux, Windows,  $\text{\LaTeX}$ , Overleaf, PhotoShop, Figma

## Selected Projects

- Hair coloring application by using CNNs (image segmentation) [GitHub](#) [Web App](#)
- Parkinson's disease detection by using few-shot learning [GitHub](#)
- Search between the detected objects of an image by using deep learning [GitHub](#) [Web App](#)
- Portrait painting recommendation system by using deep learning [GitHub](#) [Web App](#)
- Jami - A cross platform GUI for play musical instruments (Golang) [GitHub](#)

## Work Experiences

**Deep Learning Researcher** at Shenasa.ai

Mar 2022 - Now, Tehran-Iran (remote)

- **Research:** Keyword extraction methods and develop a web service for exploring documents by keywords.
- **Research:** Face anti-spoofing methods to build an authentication system.
- **Tools:** Python, FastAPI, GNU/Linux, MySQL, Git

## Computer Vision Intern at Veerasense

Aug 2021 - Sep 2021, Mashhad-Iran

- Investigated and examined CNN architectures such as YOLO, SSD, and CenterNet.
- Published a fixed version of the CenterNet model for running on Google Colab GPUs and ran some experiments with different backbones on custom datasets. [GitHub](#)

## Back-End Developer at Profile.ir

Apr 2019 - Mar 2020, Mashhad-Iran

- Developed and maintained back-end infrastructure services using micro-service architecture.
- **Developed Services:** search, recommendation, and user profile.
- **Tools:** Golang, Python, Mongo db, Elastic Search db, Web scraping, GNU/Linux, Git

## Online Courses

- |  |          |
|--|----------|
| • <b>Generative Adversarial Networks</b> <a href="#">Diginext Academy</a> , certificate                          | Jun 2022 |
| • <b>Deep Learning and Computer Vision</b> <a href="#">DigiNext Academy</a> , certificate <a href="#">GitHub</a> | Mar 2022 |
| • <b>Machine Learning in Python with Scikit-Learn</b> <a href="#">france université numérique</a> , certificate  | Jul 2021 |
| • <b>Machine Learning</b> <a href="#">Coursera</a> , certificate   | Oct 2020 |
| • <b>AI Fundamentals with Python</b> <a href="#">Datacamp</a> , certificate                                      | May 2020 |

## Honors and Awards

- **Ranked in the top 10%** among 2018 entrance students in B.Sc. computer engineering. [link](#)
- **Ranked in the top 5%** among Iranian GitHub users. [link](#)
- Awarded for solving the **Harvard Puzzle Day** event three times. [Apr 2022](#) [Sep 2020](#) [Apr 2020](#)
- **Awarded 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](#)

## Extracurricular Activities

### Main Member of the Scientific Association (CSAIAUM) at Islamic Azad University

Sep 2021 - August 2022

- Instructed and organized workshops/webinars, managed GitHub and social media, collaborated to create content [certificate](#)

### Translation of Machine Learning Course by Andrew Ng at GitHub

Sep 2020 - Dec 2020

- Published notes and translated contents while completing this course. At this moment, **12K unique users with 26K sessions** visited the website, and the average duration for reading the contents is **5min 37sec**. [website](#) [GitHub](#)

## Languages

- |                          |  |
|--------------------------|--|
| • <b>Persian:</b> Native | • <b>English:</b> IELTS (will be taken soon) |
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## References

### Dr. Mehrdad Jalali

📍 Karlsruhe, Germany

Associate Professor and Scientist at Karlsruhe Institute of Technology (KIT)

Editor of Materials Today's Communication Journal (Elsevier)

Associate Professor at Islamic Azad University

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### Dr. Shabnam Shadroo

📍 Mashhad, Iran

Assistant Professor at Islamic Azad University

Director of Computer Engineering Scientific Association at Islamic Azad University

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### Dr. Neda Maleki

📍 Kalmar, Sweden

Postdoctoral Research Fellow at Linnaeus University

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