Mehrdad Mohammadian

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Education

B.Sc in Computer Engineering at Islamic Azad University   Sep 2018 - July 2022, Mashhad-Iran
- **CGPA:** 17.53/20 (3.497/4)   **Last two years GPA:** 4/4
- **Thesis Grade:** 20/20 (4/4)   **Supervisor:** Dr. Shabnam Shadroo
- **Thesis:** Anxiety prediction using deep learning ○ GitHub ⬀ WebApp
- **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.
- **Supervisor:** ⬀ Dr. Neda Maleki   **Tools:** Python, TensorFlow, GNU/Linux, Google Colab
- 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

Teaching Experience

Instructor at Islamic 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:** Well skilled in Python, skilled in: MATLAB, C++, Golang, SQL, HTML, CSS
- **Developing Tools:** Git, FastAPI, Docker, Streamlit, Jupyter Notebook
- **Operating Systems:** GNU/Linux, Windows   **Other Tools:** LaTeX, Overleaf, PhotoShop, Figma

Selected Projects

- Hair coloring application by using CNNs (image segmentation) ○ GitHub ⬀ WebApp
- Parkinson's disease detection by using few-shot learning ○ GitHub
- Search between the detected objects of an image by using deep learning ○ GitHub ⬀ WebApp
- Portrait painting recommendation system by using deep learning ○ GitHub ⬀ WebApp
- 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

- **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** ⬈ france université numériqu, certificate   Jul 2021
- **Machine Learning** ⬈ Coursera, certificate   Oct 2020
- **AI Fundamentals with Python** ⬈ Datacamp, certificate   May 2020

Honors and Awards

- **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
- **Solved Harvard Puzzle Day** three times ⬈ Apr 2022 ⬈ Sep 2020 ⬈ Apr 2020
- **Top 5% user** among Iranian GitHub users ⬈ link

Extracurricular Activities

Main Member of the Scientific Association (CSAIAUM) at Islamic Azad University   Sep 2021 - July 2022
- Instructed and organized workshops/webinars, managed GitHub
  and social media, collaborated to create content

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

- **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 Todays Communication Journal (Elsevier)
Associate Professor at Islamic Azad University
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