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 Shadroo
- **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

- Computer Vision
- Natural Language Processing
- CNNs, GANs, RNNs
- AI in healthcare
- Deep/Machine Learning
- 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) (Accepted and ready to present) ↗ ICCKE - IEEE Xplore ↗ 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:** OpenCV, GNU/Linux, Windows, 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

- **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

- **Ranked in the top 10%** among 2018 entrance students in B.Sc of 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 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.
  Until 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 and Scientist at Karlsruhe Institute of Technology (KIT)
Editor of Materials Todays Communication Journal (Elsevier)
Associate Professor at Azad University
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Dr. Shabnam Shadroo
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Assistant Professor at Azad University
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