Curriculum Vitae

Seyed Alireza Molavi

seyedalirezamolavi@gmail.com | (0098) 993 130 3178 | Iran

LinkedIn: Seyed Alireza Molavi

Education

- **Master of Science in Computer Science**, School of Mathematics, Statistics and Computer Science, University of Tehran, Tehran, Iran, 2020-present

  Thesis: Online Handwriting Recognition Using Deep Learning, Under the supervision of Prof. BabaAli

  - Total Average Score: 19.51/20.00 - GPA: 4.00/4.00

- **Bachelor of Science in Computer Science**, School of Mathematics, Statistics and Computer Science, Kharazmi University, Tehran, Iran, 2015-2019

  - Total Average Score: 15.99/20.00 - GPA: 3.33/4.00

- **High School Diploma, Physics and Mathematics**, Shahid Dastghib High School (NODET[1]), Marvdasht, Iran, 2011-2015

Research Interests

• Natural Language Processing • Speech Processing • Large Language Models • Time Series Analysis and Forecasting • Anomaly Detection • Reinforcement Learning • Image Processing

Publications

- **Journal Articles:**
  - **Molavi, SA.** BabaAli, B. Self-Attention based Deep Architecture for Online Handwriting Recognition, Neural Computing and Applications (Submitted)
- **Conference Proceedings:**
  - **Molavi, SA.** BabaAli, B. (2023) Arabic Handwriting Recognition Based on Self-Attention Mechanism and CTC Loss, Computer Society of Iran, Sharif University of Technology

Research Projects

- **Identity Detection and Relapse Prediction Based on Medical Data**, University of Tehran, Supervised by Dr. BabaAli, 2023-present
  - At present, I am involved in researching the identity detection of patients and the relapse prediction of psychotic disorders based on sequential biometric data. The dataset I am utilizing for this purpose has been publicly released through the e-Prevention challenge. In the course of this research, I have been designing suitable supervised and unsupervised models for medical time series analysis, which has helped me to develop a better understanding of anomaly detection approaches on time series. The research is still ongoing.

[1] National Organization for Development of Exceptional Talents

- **Demographic Detection Based on Online Handwriting**, University of Tehran, Supervised by Dr. BabaAli, 2022-present
  - I conducted an investigation on gender and handedness detection based on online handwriting, which can be utilized for various purposes, including identity detection. Throughout this process, I enhanced my abilities in processing sequential data and gained experience in handling imbalanced datasets. At present, I am actively working on a research paper to document and report the findings of my study.
- **Online Handwriting Recognition**, University of Tehran, Supervised by Prof. BabaAli, 2021-2022
  - I conducted research on methods of online handwriting recognition, with a specialization in deep learning and self-attention approaches. I successfully designed a state-of-the-art model for this task, and the findings of my research have been documented in a research paper that has been submitted to a journal. Throughout the process, I gained a deeper understanding of sequence processing methods and their various use cases.

Teaching Experience

- **School of Mathematics, Statistics and Computer Science, College of Science, University of Tehran, Tehran, Iran**
  - **Machine Learning**
    — **Teacher Assistant** — Instructor: Prof. Bagher BabaAli
    — Graduate level — Fall 2024
  - **Natural Language Processing**
    — **Teacher Assistant** — Instructor: Prof. Bagher BabaAli
    — Graduate level — Spring 2023
  - **Machine Learning**
    — **Teacher Assistant** — Instructor: Prof. Bagher BabaAli
    — Graduate level — Fall 2022
  - **Machine Learning**
    — **Teacher Assistant** — Instructor: Prof. Bagher BabaAli
    — Undergraduate level — Fall 2022
  - **Machine Learning**
    — **Teacher Assistant** — Instructor: Prof. Bagher BabaAli
    — Graduate level — Fall 2021
- **Deep Learning School, Held by Kharazmi University, Tehran, Iran**
  - **Lecturer** on Deep Learning with Tensorflow/Keras Workshop, Deep Learning Summer School, Summer 2019
  - **Teacher Assistant** on Deep Learning and its techniques, Deep Learning Spring School, Lecturer: Dr. Nahid Taherian, Spring 2019

Languages

- Persian (Native), English (Fluent)

Language Certificates

- **English - IELTS Academic:** Overall Band Score: **8.0**, Listening: 8.5, Reading: 8.5, Writing: 7.5, Speaking: 7.0 (2023)

Skills

- **Programming Languages:** Python, R, Matlab, Java, Cython, Bash
- **Libraries and Tools:** Numpy, Matplotlib, Scipy, Pandas, Huggingface, Pytorch, Tensorflow/Keras, Scikit Learn, NLTK, spaCy, Dask, Numba, Seaborn, Cython $\cdots$
- **Software and Tools:** Latex, Linux, Git

Awards and Honors

- Accepted to the University of Tehran which is one the topest educational facility of Iran, 2020
- Achieved the 15th rank in the national university entrance exam for graduate level in Computer Science, 2020
- Graduated with high honors and ranked top 10% in bachelors degree, 2019

References

- **Prof. Bagher BabaAli**

  Assistant Professor
  School of Mathematics, Statistics and Computer Science
  College of Science, University of Tehran, Tehran, Iran
  babaali@ut.ac.ir, (0098-21)-61112627

- **Dr. Nahid Taherian**

  Assistant Professor
  Former Faculty Member, School of Mathematics, Statistics and Computer Science
  College of Science, Kharazmi, Tehran, Iran
  n.taherian@bontech.ir, (0098)-9124244232

Last updated: October 23, 2023