Ashkan Moradi

✉ ashkan.mradi@gmail.com
🌐 https://ashkanmradi.github.io
⦿ https://github.com/ashkanmradi
in https://www.linkedin.com/in/ashkanmradi

Education

Jan 2025 – Present	**Ph.D. student in Computer Science, Institut national de la recherche scientifique (INRS),** Montreal, Canada. **Thesis title**: *Securing the metaverse.*
Sep 2018 – Feb 2022	**M.Sc. Artificial Intelligence, Shahid Beheshti University,** Tehran, Iran. **Thesis title**: *Performance Improvement of Spoken Language Identification System via Fusion of the Acoustic and Phonetic Information based on learning methods*, (Grade: A+). **GPA**: 16.23 out of 20.
Sep 2013 – Jan 2018	**B.Sc. Software Engineering, Sadjad University of Technology,** Mashhad, Iran. **Thesis title**: *Designing and Implementing a Website about Machine Learning*, (Grade: A+). **GPA**: 16.18 out of 20.

Publications

1. Alipour Esgandani, S., Shekofteh, Y., & **Moradi, A.** (2024). Apedm: A new voice casting system using acoustic–phonetic encoder-decoder mapping. *Multimedia Tools and Applications*, 1–25.

2. **Moradi, A.,** & Shekofteh, Y. (2023). Spoken language identification using a genetic-based fusion approach to combine acoustic and universal phonetic results. *Computers and Electrical Engineering, 105*, 108549.

3. **Moradi, A.,** Shekofteh, Y., & Zarei, S. (2021). A genetic-based fusion approach of persian and universal phonetic results for spoken language identification. In *2021 11th international conference on computer engineering and knowledge (iccke)* (pp. 175–181). IEEE.

Work Experience

Teaching Assistant

2020	**Digital Speech Processing,** Shahid Beheshti University, Tehran, Iran.
	Open Banking, Tarbiat Modares University, Tehran, Iran.
2017	**Artificial Intelligence,** Sadjad University of Technology, Mashhad, Iran.
	Algorithms Design and Analysis, Sadjad University of Technology, Mashhad, Iran.
	Data Structures, Sadjad University of Technology, Mashhad, Iran.
2016 – 2017	**Operating Systems,** Sadjad University of Technology, Mashhad, Iran.
	Advanced Programming, Sadjad University of Technology, Mashhad, Iran.
2015	**Introduction to Programming,** Sadjad University of Technology, Mashhad, Iran.

Work Experience (continued)

Professional Experience

Nov 2023 – Nov 2024   **Tajan System**, .NET Developer, Tehran, Iran.

Jan 2022 – Sep 2023   **Techofen** R&D Manager, Tehran, Iran.

Mar 2020 – Oct 2023   **Techofen**, .NET Developer, Tehran, Iran.

Nov 2018 – Mar 2020   **Saman Insurance Co.,** .NET Developer, Tehran, Iran.

Projects and Research

2022   **Engine Fault Detection Using Engine Sound**: In this project, we are examining and using different acoustic features to detect engine faults in an unsupervised manner.

2020 – 2022   **Performance Improvement of Spoken Language Identification System via Fusion of the Acoustic and Phonetic Information based on learning methods**: This was my M.Sc. thesis project, for which I developed an acoustic-based x-vector system and a phonetic system based on the Allosaurus universal phone recognizer. Finally, I proposed two different fusion methods based on a genetic algorithm to fuse the mentioned system.

2020   **Sentiment Analysis on SOHA system of Shahid Beheshti University**: The goal of this project was to classify comments of SOHA systems into three groups: positive, negative, and neutral. Since these comments were not labeled, I used a lexicon-based approach to classify them.

   Implementation of "Many Objective Cooperative Bat Searching Algorithm": In this project, I implemented the "Many objective cooperative bat searching algorithm" paper to optimize problems with different objective functions.

2019   **Credit Card Fraud Detection Using Hmm**: This project aimed to detect credit card fraudulent transactions using the Hidden Markov Model and different clustering methods.

   Multiclass Semantic Segmentation: The goal of this project was to implement multiclass semantic segmentation using Fully Convolutional Networks (FCN) on the CamVid dataset.

2018   **Constrained Clustering**: The goal of this project was to add some constraints to the K-means clustering algorithm. The project was done based on active-learning methods.

2017   **Speaker Gender Detection**: The project was based on some speech-related features such as MFCC, pitch period, short-time energy, and spectral centroid.

Skills

Languages   **Persian**: Native proficiency, **English**: Full professional proficiency, **Spanish**: Elementary proficiency, **French**: Elementary proficiency.

Coding   Python, TensorFlow, Matlab, C#, C++, JS, LaTeX.

AI   Language and Speaker Recognition, Speech and Signal Processing, Machine Learning, Natural Language Processing, Deep Learning.

Other   Kaldi, Linux, Docker, Team Management, Project Management, Time Management, System Design, Full Stack Developer, Rest API.

Certifications and Training

2023   **Custom and Distributed Training with TensorFlow**, by Coursera.

Custom Models, Layers, and Loss Functions with TensorFlow, by Coursera.

2022   **DeepLearning.AI TensorFlow Developer Specialization**, by Coursera.

Sequences, Time Series and Prediction, by Coursera.

Natural Language Processing in TensorFlow, by Coursera.

Machine Learning Specialization, by Coursera.

Machine Learning: Clustering & Retrieval, by Coursera.

Convolutional Neural Networks in TensorFlow, by Coursera.

Introduction to TensorFlow for Artificial Intelligence, Machine Learning, and Deep Learning, by Coursera.

Python for Deep Learning: Build Neural Networks in Python, by Udemy.

Machine Learning: Classification, by Coursera.

Machine Learning From Basic to Advanced, by Udemy.

NLP Course for Beginner, by Udemy.

2018   **Machine Learning: Regression**, by Coursera.

Applied Machine Learning in Python, by Coursera.

Machine Learning Foundations: A Case Study Approach, by Coursera.

Applied Plotting, Charting & Data Representation in Python, by Coursera.

Introduction to Data Science in Python, by Coursera.

Miscellaneous

2019   **Best data mining project of the year award winner** at the university.

2016   **ACM/ICPC 2016 Technical Committee**, by Sadjad University of Technology, Mashhad, Iran.

2015   **ACM/ICPC 2015 Excecutive Committee**, by Sadjad University of Technology, Mashhad, Iran.