Parsa Mohammadi | Curriculum Vitae

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https://parsam.eu.pythonanywhere.com
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GitHub

in LinkedIn

ResearchGate

EDUCATION

Amirkabir University of Technology (AUT), Tehran, Iran

September 2020 – Present

- B.S. in Electrical Engineering

Ranked within the top 1% of the Iranian University Entrance exam

Shahid Beheshti, Kermanshah, Iran

September 2016 – September 2020

National Organization for Development of Exceptional Talents (NODET)

GPA: 18.87 out of 20.00

Ranked within the top 2% of the Nationwide NODET Entrance exam

RESEARCH INTERESTS

Computer Vision

Speech Processing

Signal Processing

EXPERIENCES

Machine Learning Intern

July 2022- Present

Asr Gooyesh Pardaz · Full-time, Tehran, Iran

- o Train an E2E ASR model with E-Branchformer architecture on a Persian dataset.
- o Trained model implemented on Hugging face space with Gradio. See result by clicking here.
- Supervisor: Dr. H. Sameti (Sharif University of Technology, Tehran, Iran)

Teaching Assistant

February 2023 – July 2022

Amirkabir University of Technology (AUT), Tehran, Iran

Course: "Linear Control Systems - Electrical Engineering"

- o Assisted students by solving sample questions and guiding them in the lesson.
- o Taught linear control topics related MATLAB and Simulink.
- o Provided education material, including projects and weakly homework.
- Supervisor: Dr. A. Suratgar (Amirkabir University of Technology, Tehran, Iran)

Research Assistant

December 2021 - July 2022

Iran's National Elites Foundation (INEF), Tehran, Iran

Project: "Data-driven Maintenance of Urban Infrastructure in Smart City"

- o Using Random Forest, K-means algorithms and Neural Networks to reduce the cost of maintenance and repair of power networks
- Create Decision Support web application for control centers using Django
- o Implement trained Machine Learning models on the web application

Publication:

- Tamanaeifar, M. H., Nasiri, M. G., Mohammadi, P., Haghshenas, M., Ghadamgahi, M. M., Alimadady, M., Fereidunian, A. (2022, September). Collaborative Design and Development of Integrated Preventive Maintenance Decision Support Software for Smart City Infrastructure based on Accumulated Data Analytics [Paper presentation]. 8th International Conference on Industrial and Systems Engineering, Mashhad, Iran. (https://civilica.com/doc/1537570)
- Supervisor: Dr. A. Fereidunian (K. N. Toosi University of Technology, Tehran, Iran)

Project: "Prediction of Eye Fixation for Neuromarketing"

- Collect data and create a human eye fixation dataset by concocting various experiments.
- Implementation of neural network models to predict eye fixation and advertising effectiveness.
- Supervisor: Dr. M. A. Akhaey (University of Tehran, Tehran, Iran)

SKILLS

Programming Skills

Python

- TensorFlow
- NumPy
- Pandas
- OpenCV
- Matplotlib
- Sklearn
- Django
- PyQt
- Threading
- Async IO
- Gradio

C/C++ HTML/CSS JavaScript Matlab

- Electrical Libraries
- Simulink

VHDL

- IP Core

Verilog

Machine Learning Skills

Classic algorithms

- Regression
- Classification
- Decision tree
- SVM
- Clustering
- PCA

Image processing

- CNN
- Transfer Learning
- Object Detection
- U-Net
- Style Transfer
- Siamese Network

Signal/Speech processing

- RNN
- LSTM
- Transformer
- Conformer
- E-Branchformer
- ESPnet toolkit

Others

Linux

Git

Docker

ISE Design Suite Vivado Design Suite

Proteus 8

Google Colab

PythonAnywhere

Hugging Face 🛞

CERTIFICATED COURSES

Machine Learning

Offered By: Stanford University

Platform: Coursera

Instructor: Dr. Andrew Ng

- Deep Learning Specialization
 - Neural Networks and Deep Learning (First course)
 - Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization (Second course)
 - Structuring Machine Learning Projects (Third course)
 - Convolutional Neural Networks (Fourth course)
 - Sequence Models (Fifth course)

Offered By: DeepLearning.AI

Platform: Coursera

Instructor: Dr. Andrew Ng

- Django for Everybody Specialization
 - Web Application Technologies and Django (First course)

Offered By: University of Michigan

Platform: Coursera

Instructor: Dr. Charles Severance

MATLAB for beginners

Offered By: MathWorks
Platform: MatlabAcademy
Instructors: MathWorks Team

VOLUNTEERING EXPERIENCES

Amirkabir University of Technology (AUT)

March – September 2021

Member of "Amirkabir 2021 International Summer School," Executive Team:

Tasks:

- o Invited Dr. Larry Cheng from Penn State University
- Been Dr. Larry Cheng's assistant during summer school
- Supervisor: Dr. Roohollah Bagherzadeh (Amirkabir University of Technology, Iran)
- Member of Amirkabir Astronomy Club

April 2023 - Present

Tasks:

Design and implementation of astronomical events

Honors

Win 1st place price of IEEE Open Data Hackathon Competition

November 2022

Ranked among top teams in Irancell Labs AI Hackathon.

August 2023

LANGUAGE PROFICIENCY

- English (Fluent)
- Persian (Native)
- Kurdish (Native)