Parsa Mohammadi | Curriculum Vitae

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○ GitHub   in LinkedIn   R^G ResearchGate
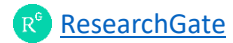
EDUCATION

- **Amirkabir University of Technology (AUT)**, Tehran, Iran   September 2020 – Present
  - B.S. in Electrical Engineering
    Ranked within the top 10% of the Electrical Engineering department
    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   • Signal Processing

EXPERIENCES

- **Machine Learning Intern**   July 2022- Present
  Asr Gooyesh Pardaz · Full-time, Tehran, Iran
  - Implemented signal processing models
  - Implementation signal processing models on the backend

  - 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*"
  - Assisted students by solving sample questions and guiding them in the lesson.
  - Taught linear control topics related MATLAB and Simulink.
  - 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*"
  - 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
  - Implement trained Machine Learning models on the web application

Publication:

- o 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"*

- o Collect data and create a human eye fixation dataset by concocting various experiments.
- o 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

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

- **Others**

  Linux

  Git

  Docker

  ISE Design Suite

  Vivado Design Suite

  Proteus 8

  Google Colab

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**:
    - 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

LANGUAGE PROFICIENCY

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