# Parsa Mohammadi | Curriculum Vitae

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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 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

- Deep Learning
- **Image Processing**

## **EXPERIENCES**

**Teaching Assistant** 

February 2023 – Present

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.
- 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 - Present

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:**

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. Alireza 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.
- Implementation of neural network models to predict eye fixation and advertising effectiveness.
- Supervisor: Dr. Mohammad Ali Akhaey (University of Tehran, Tehran, Iran)

# **SKILLS**

Programming Skills:

Python

- TensorFlow

- NumPy

- Pandas

- OpenCV

Matplotlib

- Sklearn

- Django

C/C++ HTML/CSS

Matlab

- Electrical Libraries

- Simulink

VHDL Verilog ML/AI Skills:

Regression

Classification

Decision tree

**SVM** 

Clustering

PCA

**CNN** 

- Residual Network

- Inception Network

MobileNet

EfficientNet

Transfer Learning

Object Detection

- U-Net

Style Transfer

Siamese Network

RNN LSTM

NLP

Others:

Linux

- Ubuntu 20.04

Git

Google Colab

Docker

ISE Design Suite Vivado Design Suite

Proteus 8

# **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
- o 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)