# 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
- Object Detection and Tracking

- Deep Learning
- **Image Processing**

# RESEARCH AND WORK EXPERIENCES

**Iran's National Elites Foundation** 

December 2021 – Present

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

#### Research Assistant:

- 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

#### **Publications:**

Tasks:

- 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, Iran)
- Amirkabir University of Technology (AUT) March 2021 – September 2021 Member of "Amirkabir 2021 International Summer School," Executive Team:
  - 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)

## **SKILLS**

### • Programming Skills:

### Python

- TensorFlow
- NumPy
- Pandas
- OpenCV
- Matplotlib
- Sklearn
- Django

#### Matlab

- Electrical Libraries
- Simulink

HTML/CSS Verilog C/C++

## 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

### Others:

Linux

Ubuntu 20.04

Git

Google Colab

# **Projects**

#### Personal Website

September 2022

- Create a website from scratch using Django
- o Implement gender classification model using MobileNetV3 architecture and TensorFlow
- Implementing Django security features (CSRF, SSL/HTTPS, SECRET\_KEY)

Website address: <a href="https://parsam.eu.pythonanywhere.com">https://parsam.eu.pythonanywhere.com</a>

# **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)

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

Offered By: MathWorks
Platform: MatlabAcademy
Instructors: MathWorks Team

# **LANGUAGE PROFICIENCY**

- English (Fluent)
- Persian (Native)
- Kurdish (Native)
  - > References and further information are available upon request.