# MOHAMMAD ALI ZARRIN ZADEH

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✓

LinkedIn in

GitHub 🞧

#### **EDUCATION**

## Sadjad University Of Technology

2017 - 2021

**GPA:** 3.72/4.0 (18.01/20.0)

B.S. in Computer Engineering

o Thesis:

. Game Controller based on Gesture with SVM

. Grade: 19.75/20.0

. Supervisor: Dr. Behzad Bakhtiari

National Organization for Development of Exceptional Talents (NODET)

2012-2016

Diploma of Mathematics and Physics

#### RESEARCH INTERESTS

- Machine Learning applications
- Image processing and Computer Vision
- Natural Language Processing
- Software Engineering
- IoT and Embedded Systems

## WORK EXPERIENCE

#### Signal Processing Lab At SUT

Mashhad, Iran
March 2021-Current

ML based Application Developer

- . Real-Time Object detection
- . Traffic Analyzer
- . Implement and optimize Inference Pipeline
- . Develop application for Nvidia Jetson Platform
- . Time series

#### WeBlast Ltd ♂

Mashhad, Iran April 2018-March 2021

Back-End Developer

- . Develop a wide variety of applications back-end with Django (python)
- . Leading Back-End team
- . Online store's custom solutions
- . Payment flows
- . Kids education

## Vision based Traffic Analyzer For Mashhad Transport and Traffic Organization

Full implementation of a real-time and always-on system for vehicle detection and traffic Analyzing with edge technologies under supervision of **Dr.Behzad Bakhtiari**. Project developed using YOLOV4 Deep network for inference, Tensorrt, Gstreamer, Deepstream, Opency and MQTT on nvidia Jetson platform.

#### Game Controller based on Gesture with SVM ♂

Developing low cost game controller based on Gesture/Motion using MPU6050(gyro) and ESP8266 wifi module. gestures are trained and modeled by SVM. And developing a demo game with Unity.

## Open Source CPython packages for PyPI

Object Tracker using SORT algorithm ♂.

Package for mathematical line operations  $\Box$ .

## Implementation of an AI challenge(Competition) server ♂

Implemented with Python and tkinter. Server simulates and displays a board game(Quoridor) playing by AI clients.

## Implementation of a Kids Education Application (QWERTYGO ♂)

Designing and developing back-end side with Django.

## Persian Word Recognition

Training a model with HMM for Recognition of some Persian words.

#### Simple Script Interpreter

A simple interpreter written in C++ with OOP;

## Developing Online Stores Back-End with Django RestFramwork

Most of them were start-up ideas and maybe they are down now.

#### Related Courses:

. Multimedia Systems(Image Processing And NLP): 20/20

. Algorithms Designing: 20/20

. Operating Systems: 19.25/20

. Microprocessor and Assembly: 19/20

. Data Mining: 18.5/20

. Language and Automata Theory: 20/20

. Fundamentals of AI: 19/20

. Fundamentals of Information Security: 18.5/20

## **SKILLS**

#### Programming skills:

C/C++, Python. Matlab. Basic: JavaScript, C-Sharp, HTML, CSS

## Tools/Frameworks:

Django, CPython, Arduino, Pandas, Docker, Keil, Darknet, Deepstream, Gstreamer, Opency, Nvidia Jetson, Linux, NodeJS, Cmake, PostgreSQL, Numpy.

Other skills: Problem Solving, Algorithmic Thinking, Team Work

#### **HONORS**

- Top student of graduating class
- . Ranked within the top 5% among the graduating class
- . Top student of 2017 graduation class of B.Sc program in Sadjad University Of Technology
- Member of ACM team of Sadjad University Of Technology
- . Twenty-fourth place in the 2020 ICPC Asia Tehran Regional Contest
- University Selected student for National Olympiad
- . Qualified for final contest

#### **LANGUAGES**

English: Professional Working Proficiency

. IELTS Academic: Overall 7

Persian: Native

# TEACHING ASSISTANT

Internet of Things - Dr.Bakhtiari   ✓	Sadjad University Of Technology Spring 2021
Linear Algebra - Dr.Aminian ☑	Sadjad University Of Technology $Fall\ 2020$
Algorithm Designing - Dr.Salkhordeh   □	Sadjad University Of Technology $Fall\ 2019$
Data Structures - $Dr.Bakhtiari \square (twice)$	Sadjad University Of Technology Fall 2019, Spring 2020
Advanced Programming - $Dr. Yazdanjoo \ \square$ - $Engr. Yazdanian \ \square$	Sadjad University Of Technology Fall 2018, Fall 2020
Fundamentals of Programming - $Engr. Yazdanian \  \Box \  - Dr. Shamsaee \  \Box \  - Dr. Rajaee \  \Box$	Sadjad University Of Technology Summer 2018, Fall 2018

## ONLINE COURSES

## Machine Learning ♂

Andrew Nq, Stanford online by Coursera

Machine Learning Course tutorial by Stanford online in Coursera.com.

## Neural Networks and Deep Learning ♂

Andrew Ng, Deeplearning.ai by Coursera

Through five interconnected courses, learners develop a profound knowledge of the hottest AI algorithms, masteringdeep learning from its foundations (neural networks) to its industry applications (Computer Vision, Natural LanguageProcessing, Speech Recognition, etc.)

- References, Further Information and Proofs are available upon request