# AMIR-HOSSEIN SHAHIDZADEH

 $\label{eq:Gholhak, Tehran, Iran} Gholhak, Tehran, Iran\\ (+98)9163117467 \diamondsuit Amirsh.Jymh@Gmail.com$ 

#### **EDUCATION**

Sharif University Of Technology, Tehran, Iran

2016 - Present

BSc. of Computer Engineering

GPA: overall: 3.74/4, major: 3.83/4

Department of Computer Engineering

Shahed Ansar High school, Ahwaz, Iran Diploma in Mathematics and Physics Discipline.

2013 - 2016

GPA: 18.75/20 (top 5 of school)

RESEARCH INTERESTS

- Computer Vision

- Image Representation
- Self-Driving Car & UAVs
- Robotics
- Point Cloud Processing
- Medical Image Analysis

#### ONGOING PROJECT

Quadpet April 2019 - Present

at Sharif University - Data Science & Machine Learning Lab (DML website)

Under supervision of Dr. MH. Rohban & Prof. Hamid R. Rabiee

The project working with the robots aims at object avoidance with monocular images in python using deep reinforcement learning and computer vision techniques like depth images and other feature extractors. we are trying to use transfer learning methods like domain adaptation for training policies in a dense simulation world and testing it in the real world. It is going to be submitted on 2020 ECCV.

#### TECHNICAL SKILL

**Programming** Python, C/C++/C#, Java, MATLAB, Verilog, PHP, HTML, CSS

Javascript, SQL, elasticsearch.

Python Libraries Tensorflow, PyTorch, Keras, Pandas, Numpy, OpenCV, Matplotlib.

C++ Libraries OpenCV/CL, Pylon, ImageMagick, Turbo-jpeg, Boost, Thrift

Linux Bash Programming, Makefile.

**DBMS** MySQL, PostgreSQL.

Software & Tools Sphinx(Gazebo), ROS, PyCharm, PhpStrom, IntelliJ, TeXstudio, Visual Studio,

ModelSim, Quartus, Wireshark.

#### WORK EXPERIENCE

Mobayyen May 2019 - Present

at Green Silver Leaves

We are pushing the limits of AI by inventing a scanner for detecting cancer cells from pathological images with deep-learning-based pattern recognition methods in C++. (Company Website)

#### RELEVANT COURSES

#### Coursera

- Applied Machine Learning in Python (University of Michigan)
- Fundamentals of Digital Image and Video Processing (Northwestern University)
- Introduction to Data Science in python (University of Michigan)

# Sharif University of Technology

| – Machine Learning (Dr. Kaveh Kadkhoda)        | Grade: 4/4 |
|--|------------|
| – Artificial Intelligence (Dr. MH.Rohban)      | Grade: 4/4 |
| – Linear Algebra (Dr. N. Bagherpour)           | Grade: 4/4 |
| – Probability and Statistics (Dr. H. Peyvandi) | Grade: 4/4 |
| – Multimedia Systems (Dr. M. Amiri)            | on going   |
| – Nueral Modeling (Dr. B. Vosoughi Vahdat)     | on going   |

#### **Audited Graduate Courses**

| – Deep Learning (Prof. M. Soleymani)          | Computer Eng. Dep.   |
|---|----------------------|
| – Image Processing (Prof. SH. Kasaei)         | Computer Eng. Dep.   |
| - Convex Optimization (Dr. M. Tefagh)         | $Mathematics\ Dep.$  |
| – Neural Networks (Prof. S. Bagheri Shouraki) | Electrical Eng. Dep. |
| - Graph Models (Dr. A. Amini)                 | Electrical Eng. Dep. |

#### HOBBY PROJECTS

### • Image Processing

- Medical Image Stitching
- Face Recognition using CNN
- Simple object Detection with Cifar 100

## • Artifitial Intelligence

- Predicting car prices using Logistic Regression and Gradient Descent.
- Task Scheduling using Genetic algo.
- Bayes Net. Infrence
- Markov Net.
- Sudoko solver using knowledge base algorithms.
- RushHour game solver using A\* algo.

### • Computer Networks

- Peer to Peer network using RIP algo.

# • Data Structure

- Time and space efficient Dictionary using Ternary trees

## • Advanced programming

- Tower Defence which was graphical game using multi-threading & OOP & javaFx

# **TEACHING**

| - Teacher Assistant of Linear Algebra           | Sharif University of Technology                            |
|---|--|
|   | prof. Motahari   |
| - Teacher Assistant of Computer Networks        | Sharif University of Technology prof. M. Jafari Siavoshani |
|   |  |
| - Teacher Assistant of Signals & Systems        | Sharif University of Technology                            |
|   | prof. Hemmatyar  |
| - Teacher Assistant of Digital System Design    | Sharif University of Technology prof. Alireza Ejlali       |
| - Teacher Assistant of System Design & Analysis | Sharif University of Technology prof. M. TaromiRad         |
| - Teacher Assistant of Data Transmission        | Sharif University of Technology prof. Hemmatyar            |

# LANGUAGE

English (conversant), Persian (Native)

# HOBBIES

Mountaineering (Mount Damavand 5610m), Tennis