

# Omid Chehreh Gosha

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## EDUCATION

### SHARIF UNIVERSITY OF TECHNOLOGY | COMPUTER ENGINEERING B.Sc, SOFTWARE MAJOR

Sep 2014 - Present | Tehran, Iran • Cum. GPA: 15.7/20

Bachelor thesis: Implementation of 3D Human Action Recognition system using Recurrent Neural Networks and LSTMs to handle sequential data.

### SHAHID EJEI HIGH SCHOOL | HIGH SCHOOL DIPLOMA IN MATHEMATICS AND PHYSICS DISCIPLINE

2010 - 2014 | Esfahan, Iran

Member of National Organization for Development of Exceptional Talents (NODET).

## RESEARCH EXPERIENCE

### SHARIF UNIVERSITY IMAGE PROCESSING LABORATORY | BACHELOR THESIS

July 2018 - Present | Tehran, Iran

Implementation of 3D-Human Action Recognition system using human skeleton-based representation to achieve robustness in different point of views. Considering this representation as a time series problem to recognize humans actions, using Recurrent Neural Networks (RNN) and Long Short-Term Memory (LSTMs) to handle sequential data with variable lengths.

Under supervision of Professor Shohreh Kasaei.

## WORK EXPERIENCE

### CROUSE COMPANY | RESEARCH AND DEVELOPMENT DEPARTMENT INTERN

August 2018 - Present | Tehran, Iran

- Design and implementation of a software which gives the non-technical operators a simple user interface to define procedural visual tests to check the quality and validation of company's products and their functionality, Implemented in python using PyQt, openCV libraries.
- Used image processing techniques to declare tools inside the software which have capability of detecting edges, curves, lines or compute distances, bisections and many other features. Company's operators put these tools in a time-line and set an inspection region then the software starts to check the mentioned conditions according to the time line automatically.

### MAHESTAN ENERGY COMPANY | WEB DEVELOPER

March 2017 - Present | Tehran, Iran

- Set up a private web-host to run the database and mail-server for the company's website, Provided effective and functional web designs to the company that met their specific business/personal needs.
- Developed graphic images and effects to achieve design goals, Performed routine updates and overall maintenance of the website, Optimized website content using SEO techniques.
- Programmed an user-friendly administrator panel for non-technical users to manage the contents of the website.

### MAHESTAN GAS COMPANY | SEO MANAGER

Sep 2017 - Sep 2018 | Tehran, Iran

- Used SEO techniques to drive targeted traffic to client's site while getting the site ranked for non-brand terms and increased first page targeted keywords over 100%, Assigned related meta tags to all pages of the website to reach a good search experience for users.
- Led a team of content writers to produce on-brand/SEO rich content for website, Redesigned Company's main pages to achieve SEO-friendly pages for search engines better indexing.
- Collaborated with the company team through IT-specific problems including network, mail-server problems.

### TIS ACADEMY | NATIONWIDE UNIVERSITY ENTRANCE EXAMINATION CONSULTANT

Sep 2014 - May 2017 | Tehran, Iran

- Assisted pre-university students with completing program objectives through coaching, mentoring and creating effective goal action plans.
- Held several seminars with the help of academy for the pre-university students to share own experiences and answer their questions to prepare students for the nationwide entrance examination.

## HONORS AND AWARDS

### NATIONWIDE ENTRANCE EXAMINATION (KONKUR) | RANKED 5TH

2014 | Tehran, Iran

Ranked 5th in the nationwide entrance examination (Konkur), in Technical and Mathematics Sciences examination group in the whole country among 191466 participants. By this mean I became a member of into Iran's National Elites Foundation.

## TEST SCORES

### TOEFL IBT

OVERALL 106/120

October 2018 | Tehran, Iran

Reading: 28/30

Listening: 29/30

Speaking: 22/30

Writing: 27/30

### GRE

November 2018 | Tehran, Iran

Verbal Reasoning: 143/170 - 20th percentile

Quantitative Reasoning: 169/170 - 96th percentile

Analytical Writing: 4/6 - 59th percentile

## ADDITIONAL INFORMATION

### NOTABLE PROJECTS

#### 3D REAL-TIME FIRST PERSON GAME

Project for Computer Graphics course, implemented in WebGL.

#### SNAKE AND LADDERS WEB-BASED GAME

Project for Web Development course, implemented in Expressjs and Parsplatform for the back-end and Reactjs for the front-end.

#### ONLINE PAYMENT WEBSITE

Project for Systems Analysis & Design Methods, implemented in Expressjs and Parsplatform for the back-end and Reactjs for the front-end.

#### REAL-TIME TOWER DEFENSE GAME

Project for Advanced Programming course, implemented in JAVA.

#### FPGA-BASED TRAX GAME

Project for Digital Systems Design course, implemented in Verilog.

#### 5-STAGE PIPELINE ARCHITECTURE

Project for Computer Architecture course.

### RELATED COURSE WORK

- Advanced Information Retrieval
- Artificial Intelligence
- Linear Algebra  
will be taken next semester.
- Data Structures & Algorithms
- Digital Image Processing
- Database Design
- Engineering Probability & Statistics
- Web Programming
- Computer Networks
- Computer Graphics

## LANGUAGES

### PROGRAMMING

Over 5000 lines:

Java • Python • JavaScript • C++/C • React • ReactNative • HTML • CSS

Over 1000 lines:

PostgreSQL • Verilog • PHP • Assembly •  $\text{\LaTeX}$  • MATLAB • OpenGL

Familiar:

iOS • Android • MySQL

### SPOKEN & WRITTEN

Native:

Persian

Fluent:

German, English

## RESEARCH INTERESTS

Machine Learning, Autonomous Systems, Data Mining, Process Mining, Machine Vision, Image Processing.