

# Amirhesam SALIMNIA

## Summer Internship

☎ +989369667566 @ amirhesam.salimni@google.com

in linkedin.com/in/AmirhesamSalimnia 🐙 github.com/AmirhesamSalimnia

📍 No. 22, Block B2, Bagh Behesht Residential Complex, Baq St, Saadat Abad, Tehran, Iran.

## EDUCATION

- **Bachelor of Science in Electrical Engineering**, University of Tehran, Tehran GPA (18.77/20) Sept 2016 – Present  
Minor in Computer Engineering, University of Tehran, Tehran GPA (18.23/20)
- **Diploma, Mathematics**, AE HighSchool, Tehran GPA (19.53/20) Sep 2012 – Jun 2016

## HONORS AND AWARDS

- **Silver Medal in Iranian National Physics Olympiad** 2015
- **Member of Iran's National Elites Foundation** 2015
- **Ranked 2<sup>nd</sup>** among about 120 undergraduate students of Electrical Engineering, University of Tehran Present

## RESEARCH EXPERIENCE AND NOTABLE PROJETS

**Research Assistant** Present

Implementing and improving a tracking system to solve **Multiple Object Tracking** paradigm in crowded scene using **CNNs**

**Radiomics** Fall 2017

Clustering data of NSCLC-Radiomics with a k-means algorithm to predict survival time of lung cancer patients

**Line Tracker Robot** Fall 2017

Line Tracker Robot designing by employing CNY70 sensors, DC motor, and AVR microcontroller.

**Image Processing** Spring 2018

Noise and motion artifacts reduction and also compression using implemented **JPEG** algorithm.

**Implement "Twitter" in C++** Spring 2018

Design of application "Twitter" and its implementation using hierarchical **Object Orientation** and HTTP protocols in **POSTMAN**

**Swipe Brick Breaker** Spring 2018

Game development named "Swipe Brick Breaker" in **C++** using graphical library (RSDL).

**Digital Logic Design Lab** Spring 2018

Designing a VGA controller, a function generator, DAC and a digital oscilloscope using **Verilog** in **Alltera Quartus** and implementing it on an **FPGA** board

**ACM Vahed** Summer 2018

An online virtual course selection website to help students to preplan their courses and give feedback on the course schedule using **Django** framework

**Heart Rate Monitoring System** Fall 2018

Stress detection using heartbeat sensors and **AVR** microcontroller

**Three Connected Tank** Fall 2018

Liquid level control for industrial three tanks system using a **PID** control

**Speaker Recognition** Spring 2019

Designing a classifier to recognize speaker of a sound based on **Mel-frequency cepstrum**

<b>Music Retrieval</b> Implementing an <b>identification system</b> for <b>Persian Music</b> based on Pitch-frequency histogram and <b>Metric Learning</b> methods	Summer 2019
<b>File Sharing System</b> Developing a <b>multi-threaded</b> file transfer application via <b>TCP</b> and <b>UDP</b> connections in <b>C</b>	Fall 2019
<b>Maze Problem</b> Solving maze problem using <b>Q-Learning</b>	Fall 2019
<b>Classification Problems</b> Designing classifiers for various data sets by implementing <b>SVM</b> , <b>Decision Tree</b> , <b>Bayesian Classifier</b> , and <b>Neural Network</b> from scratch	Fall 2019
<b>Decryption using Genetic Algorithm</b> Using <b>Genetic Algorithm</b> to find key of encrypted text	Spring 2019
<b>Chatting System</b> Developing a multi client chat system via <b>TCP</b> connections in <b>Python</b>	Spring 2019
<b>Mobile Pricing</b> Building <b>Regression Model</b> on mobile phone data set to fit an approximate estimation for the price model	Spring 2019

## TEACHING EXPERIENCE

---

Fall 2018	<b>Teaching Assistant</b> <i>Electromagnetics : Instructor Prof. M. Shahabadi</i> ‣ Oversaw students' assignments and graded them.
Spring 2019 Fall 2019	<b>Teaching Assistant</b> <i>Linear Control Systems : Instructor Prof. A. Adhami, Prof. F. Bahrami</i> ‣ Prepared projects and graded assignments.
Fall 2019 Spring 2020	<b>Teaching Assistant</b> <i>Engineering Mathematics : Instructor Prof. A. Tale-Masouleh</i> ‣ Oversaw students' assignments and graded them.
Fall 2019 Spring 2020	<b>Teaching Assistant</b> <i>Introduction to Computer and programming : Instructor Prof. M.R. Hashemi, Prof. H. Moradi</i> ‣ Prepared projects and graded assignments.
Fall 2019 Spring 2020	<b>Teaching Assistant</b> <i>Engineering Probability and Statistics : Instructor Prof. B. Bahrak, Prof. M. Abolghasemi</i> ‣ Oversaw students' assignments and graded them.
Spring 2020	<b>Teaching Assistant</b> <i>Digital Signal Processing : Instructor Prof. M.A. Akhaey</i> ‣ Oversaw students' assignments and graded them.
Fall 2020	<b>Teaching Assistant</b> <i>Industrial Control : Instructor Prof. A. Kalhor</i> ‣ Oversaw students' assignments and graded them.
Fall 2020	<b>Teaching Assistant</b> <i>Intelligent Systems : Instructor Prof. R. Hosseini</i> ‣ Oversaw students' assignments and graded them.

## SELECTED COURSES

---

Technical Language(20/20), English Language(20/20), Engineering Probability and Statistics(19.4/20), Systems Analysis(18.5/20), Advance Programming(18/20), Linear Control Systems(20/20), Microprocessors 1(20/20), Digital Signal Processing(19.2/20), Linear Algebra(17.75/20), Data Structure and Algorithms(20/20), Data and Analysis of Algorithms(20/20), Operating Systems(18.7/205), Modern Control(19.6/20), Intelligent Systems(20/20), Computer Networks(19.5/20, Artificial intelligence (20/20), Digital and Nonlinear Control Systems (20/20), Operations Research (Ongoing), Neural Networks and Deep Learning (Ongoing)

## COMPUTER SKILLS

---

<b>Programming</b>	C++(Advanced), MATLAB(Advanced), C(Advanced), Python(Advanced), Git(Intermediate), HTML(Intermediate), Django(Intermediate), CSS(Intermediate), Bootstrap(Intermediate), Assembly(Familiar)
<b>Hardware Programming</b>	Verilog(Intermediate), System Verilog(Intermediate), AVR(Intermediate), Arduino(Intermediate), ARM(Intermediate)
<b>Simulation Softwares</b>	Multisim(Advanced), Pspice(Familiar), Proteus(Familiar), Altera Quartus(Familiar), Modelsim(Intermediate)
<b>Typesetting</b>	L <sup>A</sup> T <sub>E</sub> X(Intermediate), Microsoft Word(Advanced)
<b>OS</b>	Linux(Intermediate), Windows(Advanced)
<b>Databases</b>	MySQL(familiar)

## LANGUAGES

---

**English** *Fluent*

> IELTS (Academic) : 7 ( Listening : 7.5, Writing : 6, Reading : 8, Speaking : 7)

**Persian** *Native*