M.Mehdi Naseri
COLLEGE BRIDGE, HAFEZ AVE, TEHRAN, IRAN

📱 (+98) 922 493 6742   •   ✉ m.naseri@aut.ac.ir   •   **in** m-naseri

EDUCATION

o **Bachelor of Science**   2015–Present
   Amirkabir University of Technology   Tehran-Iran
   - Electrical and Computer Engineering
     · Major: Electronic Engineering
     · Minor: Software Engineering
     · GPA: 18.95/20

o **High School**   2011–2015
   Allameh Helli High School   Tehran-Iran
   - Diploma in Mathematics and Physics Discipline

TECHNICAL SKILLS

o **Programming Languages:**
   - C++ [Expert]
   - Python [Expert]
   - HTML, CSS, JavaScript [Intermediate]
   - SQL [Intermediate]
   - Java [Familiar]
   - VHDL [Familiar]

o **Tools and Technologies:**
   - Familiar with Spring Framework, Nginx, Cpanel
   - Familiar with Penetration Testing and Ethical Hacking
   - Familiar with MySQL, PostgreSQL, MongoDB
   - Familiar with Bootstrap, jQuery, Qt
   - Experienced in Git, Scrum (Using Jira, Trello)
   - Familiar with IoT, ARM and AVR microprocessor (C/C++, Assembly), Raspberry Pi, Arduino
   - Familiar with Matlab, Simulink
   - Familiar with PSpice, HSpice
   - Familiar with Vim, JetBrains IDE (IntelliJ Idea, CLion, PyCharm)
   - Familiar with LaTeX

o **OS:**
   - Linux (Kali, Ubuntu, CentOS)

HONORS

o **Ranked 2nd/1st** in Electrical Engineering/Electronic Engineering, among more than 130/35 students, Amirkabir University of Technology, Tehran, Iran (Fall 2018)
o Exempted from university entrance exam for M.Sc. program and offered M.Sc. program from both Sharif University of Technology (Computer Engineering) and Amirkabir University of Technology (Electrical Engineering) (Fall 2018)
o Permitted to study Sofware Engineering as a minor (This permission is only awarded to talented students, introduced by the Exceptional Talents Office) (Spring 2018)
o **Ranked 319th/512th** in university entrance exam (Konkour), among more than 180 000 participants (Summer

2015)
- o **Semi-finalist** in Physics National Olympiad competition (Summer 2014)

PROFESSIONAL EXPERIENCE

- o **Back End Developer, Rahnema College, Tehran, Iran (Fall 2017)**
  - Internship, Developing INJA App (A social network application like Swarm) using Spring Framework, MySQL, MongoDB for Back End
  - INJA App is an application (both an andriod application and a web-based application) which users can register and share their location with their friends. For every post you can upload images, put comments, like the post and reply to other user's comments.
  - We were 7 people in the project (2 people for Front End, 2 for Android and 3 for Back End). Our Back End team was responsible for implementing a server-side application using Spring Framework and a database for storing information of users; for example username and passwords in a SQL database (MySQL) and comments, posts in a NoSQL database (MongoDB).
  - I have worked with Spring Framework (Java), CentOS (through SSH), Jira (Scrum), Git (Local GitLab) in Rahnema College; also I have learned some basic queries for MongoDB and MySQL.

- o **Front End Developer and Hardware Engineer, IoT Academy, Tehran, Iran (Summer and Fall 2018)**
  - Internship, Implementing a smart garden using Raspberry Pi, Arduino (Hardware), HTML, CSS, Javascript (Front End), Android
  - The Smart Garden project includes 18 flower pots which our team was responsible for protecting.
  - Actually, we measured temperature, humidity, soil moisture, smoke (ppm), the water level in the tank, humidity of the floor and light intensity in the garden; we monitored them in both an Android application and a Web-based dashboard.
  - We controlled the actuators (water pumps, fogger, lights, water tap) based on the values which we measured with our sensors. For Back End, we used Thing talk platform which is a fork of Thingspeak platform for IoT Back End.
  - I was responsible for programming Raspberry Pi as our IoT gateway using Python and Zigbee module. Also, I contributed in Front End team; we used pure HTML, CSS, JavaScript for developing a dashboard which monitored real-time values of sensors and had charts for presenting a history of sensors values and actuators statuses.

- o **Teaching Assistant for Advanced Programming Undergraduate Course (Spring 2019)**
  - Instructor: Dr. Jahanshahi (Amirkabir University of Technology)

PROJECTS

- o **INJA App (Fall 2017)**
  - A location based social network similar to Swarm, written in Java (Spring and Android), JavaScript (Angular JS)
  - more details in PROFESSIONAL EXPERIENCE

- o **Smart Garden (Summer and Fall 2018)**
  - An IoT based project which was responsible for protecting the flowers in the garden using data gathered from sensors, written in C++ (Arduino), Python (Raspberry Pi), HTML, CSS, JavaScript (Front End), Java (Android)
  - more details in PROFESSIONAL EXPERIENCE

- o **Pac-Man Game with Audio Control (Spring 2018)**
  - A computer game, written in C++ (Qt) with audio control using speech recognition with Python and Tensorflow, Advanced Programming course project, Dr. Jahanshahi
  - Infact, you can control the Pac-Man game by just pronouncing "up", "down", "left", "stop", "start" and "go". You can play the game in both Windows OS and Linux OS. We used Tensorflow and Google Dataset for training our network.
  - Also, the game itself was a fork of a repository in GitHub which we had to rewrite most of it and improve the graphical view of the game.

- **Design and Implementing a Database for an Online Store (Fall 2018)**
  - Written in SQL using MySQL, Database course project, Dr. Shahriari

- **Implementing a program like CamScanner (Spring 2019)**
  - Written in Python using OpenCV, Artificial Intelligence course project, Dr. Nickabadi

- **Implementing CORDIC Algorithm in FPGA (Fall 2018)**
  - Written in VHDL, Calculating trigonometric functions using CORDIC Algorithm, FPGA course project, Dr. Sharifian

- **Add CPU Scheduling Algorithms to XV6 (Spring 2019)**
  - Written in C, based on XV6 project, Operating Systems course project, Dr. Taheri Javan
  - Including Round Robin, FIFO Round Robin, Guarnteed (Fair-Share) scheduling, Multi level queue scheduling Algorithms

- **Implementing Search Algorithms in AI (Spring 2019)**
  - Written in Python from scratch, Artificial Intelligence course project, Dr. Nickabadi
  - Including BFS, DFS, DLS, IDDFS, Bidirectional, UCS, AStar, Genetic Algorithms

- **A Location Finder Using Gyroscope (Fall 2018)**
  - Implemented in ARM, Written in C, Microprocessor Lab course project, Under the supervision of Mr. Mehran Esmaili

- **Mensch ärgere dich nicht Game (Fall 2015)**
  - A German board game, written in C++ (SFML), Basic Programming course project, Dr. Jahanshahi

- **Implementing a simple digital oscilloscope and sound synthesizer (Spring 2017)**
  - Implemented by Arduino, written in C++, Microprocessor Systems & Interfaces course project, Dr. Sharifian

- **A Solution for House Prices: Advanced Regression Techniques in Kaggle (Spring 2019)**
  - Written in Python, Data Mining course project, Dr. Nazerfard

- **Modeling and Control of a Quadcopter (Fall 2017)**
  - Linear and nonlinear modeling, Simulated by Matlab and Simulink, Linear Control Systems course project, Dr. Talebi

- **Simulating a Simple Smart House (Fall 2017)**
  - Implemented by ARM microprocessor, written in C and Assembly, Computer Architecture & Microprocessors course project, Dr. Raie

- **Designing and Simulating Single-Stage Amplifier Circuit (Spring 2018)**
  - Desired Settling time, Open-loop DC gain, Output voltage swing, Evaluated by switched-capacitor sample & hold circuit for transient performance, Simulated by HSpice, Electronics III course project, Dr. Yavari

- **Simulating Class AB Amplifier Circuit (Spring 2017)**
  - Voltage Gain and Maximum Output Voltage Swing, Simulated by PSpice, Electronics II course project, Dr. Yavari

- **Designing and Simulating 3 Stage Amplifier Circuit (Fall 2016)**
  - Designed by Matlab, Simulated by PSpice, Electronics I course project, Dr. Yavari

❶ References, Further information, and Proofs are available upon Request