

Amirmohammad Shahbandegan

Electrical Engineering Graduate

📍 Tehran, Iran
☎ (+98) 9213017164
✉ am.shahbandegan@gmail.com
🌐 shahbandegan.me
🌐 [linkedin.com/in/amir-shahbandegan](https://www.linkedin.com/in/amir-shahbandegan)

Education

Bachelor's Degree, Electrical Engineering

Sep. 2016 - Sep. 2020

[Shahid Beheshti University](#)

- Last two years of studying GPA: **3.6/4** (17.28/20)
- Ranked in the **top 10%** among B.Sc. students of EE, 2020
- Bachelor's project: A binary grey wolf optimizer for the multidimensional knapsack problem ([code](#))

Notable Courses:

- Computer programming: 20/20
- Logic Circuits and Digital Systems: 20/20
- Computer Architecture and Microprocessors: 20/20
- Artificial Intelligence and Biological Calculations: 19.5/20
- Engineering Statistics and Probability: 18.25/20
- Linear Algebra: 18.2/20

High School Diploma, Mathematics and Physics

Sep. 2012 - Sep. 2016

[Allame Helli Highschool of Tehran](#)

- National Organization for Development of Exceptional Talents (NODET)
- GPA: **19.80/20**

Publications

- A. Shahbandegan, M. Naderi, "A Binary Butterfly Optimization Algorithm for the Multidimensional Knapsack Problem," 6th Iranian Conference on Signal Processing and Intelligent Systems, 2020.

Research Interests

- Machine Learning and Deep Learning
- Natural Language Processing
- Reinforcement Learning

Teaching Experience

Online Course Instructor

Jan. 2020 - Jul. 2020

[Quera \(Link to course home page\)](#)

- One of the best selling PHP courses in Persian with more than 800 students
- Developed the course outline and contents in a team of 4 professional developers
- Consulted the course students

C++ Programming Instructor

Jun. 2018 - Sep. 2018

[Allame Helli Highschool of Tehran](#)

- Taught C++ programming in group classes of between 25-30 junior students

Teaching Assistant

Jan. 2017 - Jan. 2020

[Shahid Beheshti University](#)

- Computer Programming course by Dr. Asharioun (6 Semesters)
- Computer Architecture and Microprocessors course by Dr. Asharioun (3 Semesters)
- Logic Circuits and Digital Systems course by Dr. Mahdiani (2 Semesters)

Work experience

Co-Founder and CTO

Mar. 2018 - Present

Asan Sports

- Asan Sports is a leading startup in the sports field in Iran with more than 10000 customers and received around 150,000 USD in the seed funding stage
- Developed the backend software using PHP and Laravel
- Managed a team of 3 developers

Software Engineer

Aug. 2018 - Sep. 2019

Viranegar Technologies

- Worked on a realtime augmented reality makeup mobile app using C++ and Android NDK
- Used dlib and OpenCV for face recognition and image processing
- Sample landmark detection video available [here](#)

Honors and Awards

1st place in Digikala Academy AI challenge

Nov. 2019

Digikala ([Link to scoreboard](#))

First place among 76 contestants. source code available [here](#)

Deep reinforcement learning specialization certificate

Mar. 2020

Coursera ([Link to certificate](#))

Awarded after completion of 4 courses in deep reinforcement learning and a final project of a complete reinforcement learning system including environment modeling, agent training, and parameter study.

Deep learning specialization certificate

Aug. 2019

Coursera ([Link to certificate](#))

Awarded after completion of 5 courses in deep learning. The following are some of the projects that have been completed and graded during these courses.

- Face Recognition Using Triplet Loss Function
- Art generation with Neural Style Transfer
- Car detection with YOLO
- Trigger Word Detection
- Neural Machine Translation with Attention
- Emoji Recommender

Javacup certified java developer

Oct. 2016

Javacup ([Link to certificate](#))

5th place in Snappfood PHP programming competition

Oct. 2019

Snappfood ([Link to scoreboard](#))

5th place among 200+ contestants

Projects

Evolutionary Robotics

2020

[Link to github repository](#)

Evolutionary robots learning to move towards an objective. A quadruped robot was implemented and optimized using the genetic algorithm.

Feature selection using multi-objective grey wolf optimizer

2020

[Link to github repository](#)

A multi-objective grey wolf optimizer in combination with the KNN classifier was implemented to select a subset of features that result in higher accuracy and a lower number of features.

Navigation system using deep Q-learning and CNN

2020

[Link to github repository](#)

A reinforcement learning agent was trained to navigate and collect bananas in a large world using DQN.

Solving OpenAI LunarLander Environmet using deep Q-learning 2020

[Link to github repository](#)

Deep Q-Learning and experience replay were implemented to solve OpenAI Gym's LunarLander environment.

Iran's ministry of foreign affairs booking web application 2018

[Link to the website](#)

A web application to book an appointment before visiting Iran's ministry of foreign affairs in Munich.

Smart Air Conditioner Controller 2018

[Link to github repository](#)

An internet-connected air conditioner controller was created using Node-MCU and temperature and humidity sensors. A companion mobile application was designed that connects to the device using MQTT protocol and can control and report the room temperature.

FlyDroid: A quadcopter autopilot based on Android and Arduino 2014

Modern smartphones come with lots of features such as a high-speed CPU, camera, IMU sensor, and internet connectivity. In this project, an android phone is mounted on a quadcopter, and autopilot software and hardware were developed to use the device features to control the flight.

Languages

English: Full professional proficiency

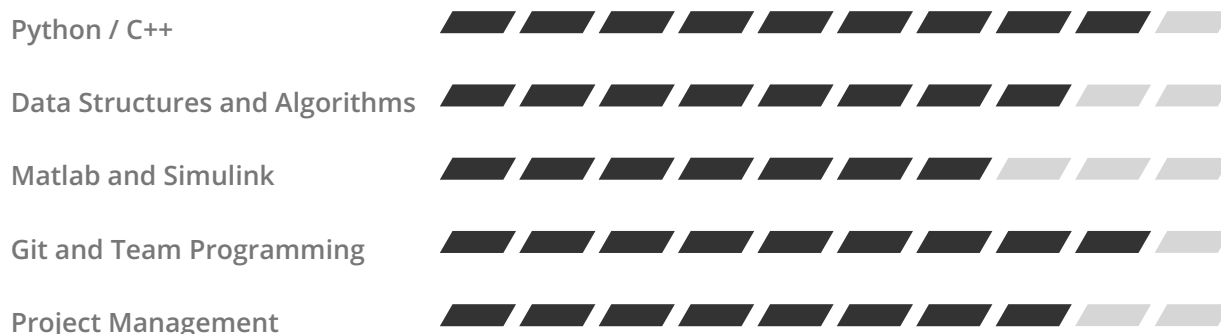
Persian: Native

IELTS Academic overall score: **8**

Listening: 8.5 Reading: 9

Writing: 7 Speaking: 7

Skills



Volunteer Work and Extra-Curricular Activities

Technical Director of Mechatronics Student Council Sep. 2018 - Sep. 2019

[Shahid Beheshti University](#)

Event Manager Assistant Jan. 2017 - Mar. 2017

[Jahesh Accelerator](#)

References

- **Dr. H. Torkaman**, Associate Professor of Electrical Engineering, Shahid Beheshti University
(+98) 21-73932525 - h_torkaman@sbu.ac.ir
- **Dr. H. Asharioun**, Assistant Professor of Electrical Engineering, Shahid Beheshti University
(+98) 21-73933028 - asharioun@sbu.ac.ir
- **Dr. A. Arasteh**, CEO, Viranegar Technologies
(+98) 21-88536748 - a.arasteh@vnegar.com