

Banafsheh Karimian

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🏠 <https://banafshehkarimian.github.io/>

Education

Oct. 2020 - Present

University of Tehran

- Machine Intelligence and Robotics
- GPA: N/A

Sep. 2015 - July. 2019

IUST, Iran University of Science and Technology

- B.Sc. in Computer Engineering
- GPA: 17.67/20.00 - 3.89/4.00 (Via 141 passed credits)

Sep. 2011 - June. 2015

Salam-Sabz High School

- Pre-University and High School
- Diploma in Mathematics and Physics
- GPA: 18.86/20.00 - 4.00/4.00

Research Interests

- Robotics
- Evolutionary Robotics
- Surgical Robotics
- bionics
- Soft Robotics
- Computer Vision
- Rehabilitation Robotics
- Legged Robotics
- Machine Learning
- Reinforcement Learning
- Medical Imaging

Honors & Awards

2020

Ranked 39th

- In the masters National Universities Entrance Exam
- In Computer Engineering- Artificial Intelligence

2015 - 2019

Ranked among top 3 students

- For **eight out of eight** semesters
- Among **37** students of computer engineering (Software) department

2015 - 2019

Awarded as a top student (IUST)

- For all considered academic years
- Selected based on GPA

2015

Ranked 934th

- In the National Universities Entrance Exam
- In Math and Physics exam

Publications

P. Golshan, H. Rahmani, B. Karimian, F. Karimkhani, G. Weiss, "MEGA: Predicting the Best Classifier Combination Using Meta-Learning and a Genetic Algorithm" (Accepted to be published in [Intelligent Data Analysis Journal](#))

Research

Using meta learning and genetic algorithm to predict the best ensemble of classifiers for a dataset

- IUST, Data Flow lab.
- Under supervision of Dr. Hossein Rahmani, collaborating with [Prof. Gerhard Weiss](#)
- [Description](#)

A method of mapping entity linking to word sense disambiguation

- IUST, DM lab.
- Under supervision of Dr. Minaie
- [Description](#)

Eye refractive error detection

- IUST, Data Flow lab.
- Under supervision of Dr. Hossein Rahmani
- [Description](#)

Experiences

Research Assistant

2017 - 2020

Research Assistant at data-flow laboratory

- Iran University of Science and Technology
- Under the supervision of Dr. Hossein Rahmani

Teaching Assistant

2019

Teaching Assistant of **Computer Vision** course

- Department of computer, IUST

2019

Teaching Assistant of **Algorithm Design and Analysis** course

- Department of computer, IUST

2019

Teaching Assistant of **Theory of computation** course

- Department of computer, IUST

2017

Teaching Assistant of **Data Structures** course

- Department of computer, IUST

2017

Teaching Assistant of **fundamentals of programming** course

- Department of computer, IUST

Selected Academic Projects

Eye gaze keyboard

- Python, OpenCV, Computer Vision
- [Description](#)

Multi-agent robotic hand push and grasp

- Python, Vrep_Pro, RL, Multi-agent Robotics

- [Description](#)

Stereo camera calibration

- Python, OpenCV, Computer Vision
- [Description](#)

Heart disease detection

- Python, Scikit-Learn, Machine-Learning
- [Description](#)

Comparison of elementary literature books and Sentiment Analysis

- WordMap, NLP
- [Description](#)

Sentiment Analysis

- Java, Open-nlp toolkit, NLP
- [Description](#)

Snakes and Ladders educational board game application

- As a project for red crescent
- Using Android Studio

Selected Academic Courses

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|----------------------------------------------|---------------------------------------------|-------------------------------------------------|
| ▪ Artificial Intelligence and Expert Systems | ▪ Foundations of Robotics | ▪ Foundations of Speech and Language Processing |
| ▪ Foundation of Computer Vision | ▪ Foundations of Computational Intelligence | ▪ Signal and Systems |

Technical Skills

Programming Languages	Java, Python, C++, Spark Scala
Environments	Android Studio, Unity, IntelliJ, Pycharm
Other	OpenCV, Arduino, Clementine, Cytoscape, Tensorflow, Keras

Language Skills

English	fluent: IELTS 7.5 (2018- 2020) GRE 320 (Quant 167, Verbal 153, Writing 3)
Persian	native

Reference

Dr. Hossein Rahmani, Assistant professor at Computer Engineering Department at Iran University of Science and Technology and Research Fellow at Maastricht University

E-mail: h_rahmani@iust.ac.ir

Dr. Sauleh Eetemadi, Assistant professor at Computer Engineering Department at Iran University of Science and Technology

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