

# Mohammad Saleh Ebrahimi Shahabadi

## Education

- Since **Bachelor of Science in Computer Science**, *Shahid Bahonar University of Kerman, Kerman, Iran.*  
2017 CGPA: 3.37/4, Major GPA:3.84/4, Ranked 3<sup>rd</sup> in Computer Science Department among 75+ entrants of 2017.
- 2014- **Bachelor of Science in Mechanical Engineering**, *Shahid Bahonar University of Kerman, Kerman, Iran,*  
2017 **Changed major to Computer Science.**  
*Admission requirement is being ranked in the 99th percentile in Nationwide University Entrance Exam (Concours).*

## Publications

- 2019 **A Novel Hybridization of Self-adaptive Multi-verse Optimizer over K-Means for Data Clustering**,  
Hamed Tabrizchi, **Mohammad Saleh Ebrahimi Shahabadi**, Marjan Kuchaki Rafsanjani.  
*Accepted at 8<sup>th</sup> Joint Congress on Fuzzy and Intelligent Systems - under the supervision of IEEE.*
- A combination of Clustering-based Under-sampling to overcome Imbalanced Class problem**,  
**Mohammad Saleh Ebrahimi Shahabadi**, Hamed Tabrizchi, Marjan Kuchaki Rafsanjani.  
*Under review at Pattern Recognition*

## Projects

- 2015- **Smart wristband for the elderly.**  
2017 **Objective:** Designing a wristband for the elderly to record vital signs and track location in case of an emergency.  
**Description:** The first series of smart wristbands was designed by a group of active students of the Robotics and Mechatronics Association as a research project under my supervision, passed the design stage and entered the laboratory model construction stage.

## Experience

### Teaching Experience

- Fall **Advanced Programming Teaching Assistant**, *Shahid Bahonar University.*  
2018

### Research Experience

- Since **Research Assistant**, *Department of Computer Science, Shahid Bahonar University,*  
2018 **Description:** I was working on Algorithmic level approaches for addressing the Imbalanced dataset problem; work resulted in one under-review paper at Pattern Recognition.  
Also, I have worked on combining the evolutionary algorithms with K-Means to automate the process of finding the optimal number of clusters and choosing the best initial cluster centroids. Work resulted to an accepted paper in the 8<sup>th</sup> joint congress on Fuzzy and Intelligent systems. **Supervisor:** Dr Marjan Kuchaki Rafsanjani.

### University Services

- Since **Data Mining and Machine Learning Group Member**, *Mahani Mathematical Research Center, Shahid*  
2019 *Bahonar University*, Attended weekly discussions, gave advice to other members and held a lecture: Clustering-based feature selection (with A. Hassani - 2019).
- 2019 **Member of the Technical Team, 3<sup>rd</sup> Saba Programming Contest**, *Shahid Bahonar University.*
- 2016- **Head of Mechanical Engineering Scientific Student Association**, *Department of Mechanical Engineering,*  
2018 *Shahid Bahonar University.*  
I was in charge of holding extra-curricular courses and student guidance. During my tenure, the association won the 9<sup>th</sup> university-wide HAREKAT award. (1<sup>st</sup> ranked association in the University)
- 2015- **Editor-in-chief of "Tik" Scientific Journal**, *Shahid Bahonar University*, Honorary student scientific journal  
2017 at the 7<sup>th</sup> university-wide HAREKAT competition.

- 2015- **Robotics and Mechatronics Student Association Member**, *Shahid Bahonar university*.  
2016 Worked on various projects and attended in national and international robotic and mechatronic competitions.

## Honors and Awards

- 2020 **Undergraduate Research Excellence Award**, *Department of Mathematics and Computer Science*, Shahid Bahonar University, Awarded distinguished researcher among Computer Science students for research conducted in Machine Learning.
- 2018 **1<sup>st</sup> Rank Scientific Association**, Honored as the **President of Mechanical Engineering Student Scientific Association**, the university-wide distinguished association among (80+) scientific associations.
- 2017 **1<sup>st</sup> Rank Scientific Association**, *Presented by the Minister of Science, Research and Technology of Iran*, Honored as a member of the National distinguished association among (9000+) scientific associations in Iran.
- 1<sup>st</sup> Rank Scientific Association**, *Presented by the Vice Minister of Science, Research and Technology of Iran*, Honored as a member of the National distinguished association among (9000+) scientific associations in Iran.
- 1<sup>st</sup> Rank Scientific Association in the Invention Competition**, *Presented by the Vice Minister of Science, Research and Technology of Iran*, Honored as a member of the National distinguished association among (9000+) scientific associations in Iran.
- 2016 **Member of the 1<sup>st</sup> Rank Scientific Association**, the university-wide distinguished association.
- Member of the Honorary Student Scientific Journal Award**, the university-wide Honorary association.
- Member of the 1<sup>st</sup> Rank Scientific Association in Creativity**, the university-wide distinguished association.
- Member of the 1<sup>st</sup> Rank Scientific Association in Innovation**, the university-wide distinguished association.
- Member of the 1<sup>st</sup> Rank Scientific Association in Entrepreneurship**, the university-wide distinguished association.

## Technical Skills

**Programming**, Python, C/C++, MATLAB.

**Scripting**,  $\LaTeX$ , HTML, CSS.

**Machine Learning**, PyTorch, TensorFlow, Keras, Scikit-Learn.

**Data Management**, Tableau, Pandas, SQL Server.

**Operating Systems**, Linux, Windows.

## Research Interests

Computer Vision, Deep Neural Networks, Clustering, Transfer Learning, Visual Analytics, Human Activity Recognition, Object Detection, Object Recognition, Recommender Systems, Visual Data Mining, Instance Segmentation, Self-supervised Learning, Natural Language Processing, Human Body Pose Estimation, Text clustering, Emotion and Sentiment Analysis, Feature Selection

## Certificates (click to view the certificate)

**Neural Networks and Deep Learning** | deeplearning.ai

**Improving Deep Neural Networks** | deeplearning.ai

**Structuring Machine Learning Projects** | deeplearning.ai

**Convolutional Neural Networks** | deeplearning.ai

**Data Science Math Skills** | Duke University

**How to Write and Publish a Scientific Paper (Project-centered Course)** | École Polytechnique

**Intro. to TensorFlow for AI, ML, and Deep Learning** | deeplearning.ai

**Machine Learning with Python** | IBM

## Languages

English Professional working proficiency

Persian Native speaker

## Test Score

Planning to take TOEFL IBT by 15<sup>th</sup> of October 2020

## References

### **Marjan Kuchaki Rafsanjani**

Associate professor at department of Computer Science, Shahid Bahonar University of Kerman.

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### **Arsham Borumand Saeid**

Professor at the department of Pure Mathematics, Shahid Bahonar University of Kerman.

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### **Ali Mohammad Shafei**

Associate professor at department of Computer Science, Shahid Bahonar University of Kerman.

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