

# AMIR MASOUD SEFIDIAN

## PERSONAL INFORMATION

*Birth Date & Place* June 20, 1993, Damghan, Iran  
*Marital status* Single  
*E-mail* [amir.masoud.sefidian@gmail.com](mailto:amir.masoud.sefidian@gmail.com)  
*Website* [sefidian.com](http://sefidian.com)  
*Address* Yousef Abad, Tehran, Iran  
*Skype* [amir.masoud.sefidian](https://www.skype.com/user/amir.masoud.sefidian)  
*LinkedIn* [linkedin.com/sefidian](https://www.linkedin.com/company/sefidian)  
*Phone* (M) +98 (930) 650 8643

## RESEARCH INTERESTS

Machine Learning  
Data Mining  
Deep Learning  
Artificial Intelligence  
Pattern Recognition  
Information Retrieval

## EDUCATION

### 2015-2017 **M.Sc. in Computer Engineering**

[Shahid Rajaee University](#), Tehran, Iran

**GPA: 4.0/4.0 (19.34/20)** · **Ranked 1<sup>st</sup>** among all M.Sc. students.

Thesis: *"Missing value estimation and inconsistencies detection in data improvement using data partitioning"* (Mark: 20/20)

Supervisor: Dr. Negin Daneshpour

Relevant Coursework: Data Mining, Machine Learning, Pattern Recognition, Advanced Operating Systems, Web Mining, and Decision Support Systems.

### 2011-2015 **B.Sc. in Computer Engineering**

[Shahid Rajaee University](#), Tehran, Iran

**GPA: 3.96/4.0 (19.15/20)** · **Ranked 1<sup>st</sup>** among all B.Sc. students.

Thesis: *"Designing an online consultation system"* (Mark: 20/20)

Supervisor: Dr. Hamid Reza Shayegh

### 2007-2011 **High School Diploma in Mathematics & Physics**

Kosaran High School, Tehran, Iran

**GPA: 19.75/20** · First rank in the class

## PUBLICATIONS

### *Journal Papers*

**Sefidian, Amir Masoud**, and Daneshpour, Negin (2019). *"Missing value imputation using a novel grey based fuzzy c-means, mutual information based feature selection, and regression model"*. *Expert Systems with Applications*, 115, 68-94.

**Sefidian, Amir Masoud,** and Daneshpour, Negin (2018). "Applying regression models on subsets with high correlations for a better numeric missing values imputation". *Tabriz Journal of Electrical Engineering*, 48(3), 1187-1200.

**Sefidian, Amir Masoud,** and Daneshpour, Negin (2017). "Using clustering and a hybrid method to fill the numeric missing values". *Iranian Journal of Electrical and Computer Engineering (IJECE)*, 15(3), 233-242.

#### Submitted Papers

**Sefidian, Amir Masoud,** and Daneshpour, Negin (2019). "Estimating missing data using novel correlation maximization based methods". Submitted to *Applied Soft Computing*.

#### HONORS & AWARDS

2018-2019 Best researcher of Shahid Rajaei University award.

2017-present Recognized as a National Elite by [Iran's National Elites Foundation \(INEF\)](#) (INEF is a national organization and composed of members who show exceptionally high intellectual capacity, academic aptitude, and creative ability.).

2015-2017 **Ranked 1<sup>st</sup>** among all M.Sc. Computer Engineering students.

2015 Received straight M.Sc. admission offer to Shahid Rajaei University (This special position is offered to elite B.Sc. students who achieved highest GPAs to be straightly admitted to M.Sc. program.).

2011-2015 **Ranked 1<sup>st</sup>** among all Computer Engineering students in all of (eight) semesters of studying B.Sc.

2011-2015 Awarded Faculty of Computer and Electrical Engineering prize and scholarship as exceptional talent student for four consecutive years.

2011 Ranked within top 1% among more than 464,000 applicants in B.Sc. National Universities Entrance Exam, Iran.

2007-2011 **Ranked 1<sup>st</sup>** among all students at Kosaran High School (of the same enrollment year) for four consecutive years.

Nov 2009 Qualified for the final round of *Khawrazmi National Robotics Competitions - Rescue League* (Ranked 8<sup>th</sup> in the final stage), K. N. Toosi University of Technology, Tehran, Iran.

Apr 2009 Participating as a member of Kosaran High School Robotics Team in 4<sup>th</sup> *International RoboCup Iran Open Competitions - Rescue League*, Qazvin Azad University, Qazvin, Iran.

Feb 2009 Participating as a member of Kosaran High School Programming Team in *Iranian High School Students Programming (C++) Competition*, Sharif University of Technology, Tehran, Iran.

#### RESEARCH / PROFESSIONAL EXPERIENCE

2015-present **Researcher**, Computer Science R&D Laboratory, Faculty of Computer Engineering, Shahid Rajaei University:

Conducting research in the field data cleaning especially missing values imputation problem:

Writing a survey on Preprocessing Techniques in Web Log Usage Mining.

Designing and implementing three novel missing imputation approaches:

- A hybrid imputation approach based on clustering, weighted k nearest neighbors, and linear regression models.
- Ten correlation maximization based imputation methods
- Missing data imputation approach using a grey-based fuzzy c-means, mutual information based feature selection, and regression models.

2019 **Reviewer**, *International Journal of Uncertainty, Fuzziness, and*

Knowledge-Based Systems (IJUFKS).

2019 **Reviewer**, International Journal of Information Technology, and Decision Making (IJITDM).

#### TEACHING EXPERIENCE

2018–present **Private Tutor**, Teaching Python, Machine Learning, and Data Mining.

Spring 2018 **Teaching Assistant**, "Data Mining", Faculty of Computer Engineering, Shahid Rajaei University, Instructor: Dr. N. Daneshpour.

Fall 2017 **Teaching Assistant**, "Decision Support Systems", Faculty of Computer Engineering, Shahid Rajaei University, Instructor: Dr. N. Daneshpour.

Spring 2016 **Teaching Assistant**, "Database", Faculty of Computer Engineering, Shahid Rajaei University, Instructor: Dr. N. Daneshpour.

#### SELECTED ACADEMIC PROJECTS

Implementing various machine learning algorithms such as MultiLayer Perceptrons, Self-Organizing Maps, Radial Basis Function Networks, Naïve Bayes Classifier, K Nearest Neighbors, K-means, and Genetic Algorithm from scratch using PYTHON.

2016 **Machine Learning Course Project**, Designing and developing a novel missing data imputation framework using Self-Organizing Map (SOM) neural networks and Weighted K Nearest Neighbors technique.

2016 **Semantic Web Course Project**, Designing and implementing different semantic web layers for a transport application using XML, XQuery, XSD, XSLT, and Web Ontology Language (OWL).

2015 **Expert Systems Course Project**, Predict and analyze performance of Portuguese students in Portuguese language course using different data mining techniques (Decision Tree, Random Forest, Neural Network, SVM, and KNN) in Weka.

2015 Designing and implementing a simple word segmentation algorithm for Persian text images using morphological operations in Matlab.

#### MEMBERSHIPS

2017–present Iran's National Elites Foundation (INEF)

2007–2011 Kosaran High School Robotics Team

#### WORK EXPERIENCE

2014–present **Freelance PYTHON Developer**

Developing data analysis and machine learning services in order to analyze organizational time series data based on microservices architecture using Python, Apache Kafka, gRPC, Protobuf, and Docker.

Designing and implementing a web-based appointment scheduling, accounting, and management system for Farzandane Bartar Consultation Institute using Django, MySQL, HTML, CSS, and JavaScript.

2013–2014 **Freelance PHP Developer**

Developing first carpooling website in Iran [4paaye.ir](http://4paaye.ir) (Winner website of 8<sup>th</sup> Iranian Web and Mobile Festival (IWMF)).

Back-End developer of Mehreab Magazine website.

Summer 2014 Summer Intern, [IdeBekr Mobin](#) - Tehran

Full-Stack Web Developer, Software Quality Assurance and Control Tester

#### TECHNICAL SKILLS

<i>Programming Languages</i>	Proficient in PYTHON: Machine Learning, Data Science, Deep Learning, and Web applications  Familiar with: Java, Scala, C++/C, PHP, WebDev Languages (HTML, CSS, JavaScript/jQuery), MATLAB, Assembly
<i>Databases</i>	Elasticsearch, Redis, MySQL, PostgreSQL, MongoDB, SQLite
<i>Other Tools &amp; Technologies</i>	Apache Spark, Apache Kafka, Git, Docker, gRPC, Protocol Buffers, RESTful API, Microservices & MVC architectures, L <sup>A</sup> T <sub>E</sub> X, Weka, Raspberry Pi, AVR Microcontrollers
<i>Operating Systems</i>	Linux and Windows

#### LANGUAGES

PERSIAN · Mothertongue  
ENGLISH · Fluent (Reading, Listening), Intermediate (Writing, Speaking)

#### SELECTED ONLINE COURSES

2019	<a href="#">Introduction to TensorFlow for Artificial Intelligence, Machine Learning, and Deep Learning - Coursera</a>
2019	<a href="#">AI For Everyone - Coursera</a>
2019	<a href="#">Deep Learning Specialization: Sequence Models - Coursera</a>
2019	<a href="#">Deep Learning Specialization: Convolutional Neural Networks - Coursera</a>
2018	<a href="#">Deep Learning Specialization: Structuring Machine Learning Projects - Coursera</a>
2018	<a href="#">Deep Learning Specialization: Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization - Coursera</a>
2018	<a href="#">Deep Learning Specialization: Neural Networks and Deep Learning - Coursera</a>
2018	<a href="#">Python for Data Science and Machine Learning Bootcamp - Udemy</a>
2018	<a href="#">The Complete Machine Learning Course with Python - Udemy</a>
2018	<a href="#">Understanding Machine Learning with Python - Pluralsight</a>
2018	<a href="#">Complete Python Bootcamp: Go from zero to hero in Python 3 - Udemy</a>
2018	<a href="#">The Python Bible: Everything You Need to Program in Python - Udemy</a>
2018	<a href="#">The Ultimate Python Programming Tutorial - Udemy</a>
2017	<a href="#">Machine Learning - Coursera</a>
2016	<a href="#">Python for Beginners: Python Programming Language Tutorial - Udemy</a>

#### EXTRACURRICULAR ACTIVITIES AND HOBBIES

Playing Piano & Melodica · Playing Football · Swimming · Running · Cycling

#### REFERENCES

Available upon request.

July 31, 2019