



EDUCATION

M.Sc. in Computer Engineering

Shahid Rajaee University, 2015–2017

- ▶ GPA: 4.0/4.0 (19.34/20) · Ranked 1st among all M.Sc. students.
- ▶ Thesis: "Improving missing value estimation and inconsistencies detection using data partitioning techniques".

B.Sc. in Computer Engineering

Shahid Rajaee University, 2011–2015

- ▶ GPA: 3.96/4.0 (19.15/20) · Ranked 1st among all B.Sc. students.

EXPERIENCE

Python Developer

Freelancer, 2014–present

- ▶ Designed and developed an AI-based song's vocal/instrumental separator web application.
 - ▶ It generates separation results in less than 40 secs (for songs < 5 mins) on Geforce 960m.
 - ▶ Technologies & Tools: Deep U-Nets, PyTorch, Flask, Django, PostgreSQL.
- ▶ Developed an intelligent organizational data analysis system.
 - ▶ It provides analytical insights about KPIs of an organization using AI algorithms.
 - ▶ Technologies & Tools: Python, Apache Kafka, Redis, gRPC, Protobuf, and Docker.
- ▶ Developed a web-based appointments scheduling, accounting, and management system.
 - ▶ Replaced traditional paper-based system and helped institute staff to efficiently manage more than 30000 appointments, 7000 transactions, and 3000 clients during two years of launching.
 - ▶ Tech Stack: Django, MySQL, HTML, CSS, and JavaScript.
- ▶ Developed an image captioning service.
 - ▶ Trained an Encoder(CNN)-Decoder(LSTM) architecture on MS COCO dataset to generate captions for input images using PyTorch.
 - ▶ Achieved 0.98 BELU score.
- ▶ Developed a multi-label disaster response message classification web app for Figure Eight dataset.
 - ▶ Built ETL and NLP pipelines to classify a message for emergency workers.
- ▶ Developed an energy consumption prediction service.
 - ▶ It predicts hourly energy consumption (multi-variate time series) using GRU/LSTM networks.
- ▶ Developed a sentiment analysis service for Amazon customer reviews dataset using deep RNNs.
 - ▶ Achieved 82.3% accuracy on test dataset.
- ▶ Developed a recommendation engine for IBM dataset.
 - ▶ It surfaces the content most likely to be relevant to a user based on user behavior and social network data using machine learning techniques.
- ▶ Developed a Facial Keypoint Detection service.
 - ▶ It recognizes faces and predicts the location of 68 distinguishing keypoints for an image using deep CNNs (NaimishNet Architecture).
- ▶ Developed a 2D Landmark Detection & Robot Tracking (SLAM) using Graph SLAM algorithm.
 - ▶ It creates a map and locates landmarks of an environment using sensor and motion data gathered by a self-driving car.

Full Stack PHP Developer

Freelancer, 2013–2014

- ▶ Developed first carpooling website in Iran 4paaye.ir (Winner of 8th Iranian Web and Mobile Festival).

C/C++ Developer

Kosaran Robotics Team, 2007–2011

- ▶ Developed C/C++ codes to program AVR Micro-controllers for rescue robots.

PUBLICATIONS

- ▶ Sefidian, A.M., and Daneshpour, N. (2020). "Estimating missing data using novel correlation maximization based methods". **Applied Soft Computing**, 91, 106249.
- ▶ Sefidian, A.M., and Daneshpour, N. (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.

CONTACT ME

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FIELDS

Machine Learning & Data Science



Software Development



Deep Learning



PROGRAMMING LANGUAGES

Proficient in **Python**:
Machine Learning, Data Science,
Deep Learning, and Web
applications

Familiar with:
Java, C++/C, PHP, MATLAB,
WebDev (HTML, CSS, JS)

TOOLS

Apache Spark, Apache Kafka, Git,
Docker, gRPC, Protocol Buffers,
LaTeX, Weka, Raspberry Pi

DATABASES

MySQL, PostgreSQL, Redis,
Elasticsearch, MongoDB, SQLite

