Zahra **Habibzadeh**

Graduate Student · Research Assistant

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"Be the change that you want to see in the world."

Education

University of Tehran — *Tehran, Iran*

M.Sc. in Artificial Intelligence and Robotics — *2020 - present*

- Overall GPA: 18.64/20 (4/4)

University of Mazandaran — *Babolsar, Iran*

B.S. in Computer Engineering — *2012 - 2016*

- Thesis: Desining new Article site by using PHP and SQL
- Overall GPA (Last two years): 4/4 last two years

Research Interests

☑ **Social Networks**	Behavioral Analysis
☑ **Machine Learning**	Predictive Analysis
☑ **Data science**	Exploratory Data Analysis
☑ **Deep Learning**	Lstm in Finance ML

Research Experience

Research Assistant — *Tehran, Iran*

Social Networks Lab, University of Tehran — *2021 - present*

- Working on predicting social indexes from twitter

Research Experience

Mentor — *HooshBuz Summer School*

University of Tehran, Tehran, Iran — *2022*

- Data Analytics and Machine Learning

Teaching Assistant — *Dr. Mohammad Amin Sadeghi*

School of Electrical and Computer Engineering, Collage of Engineering, University of Tehran, Tehran, Iran — *2021*

- Data Analytics

Honors & Awards

Domestic

2016 **2rd Rank,** Among Graduated Bachelor Students based on Overall GPA among 70 students — *Babolsar, Iran*

2020 **Top 0.1%,** National Iran-Wide University Entrance Exam for Master's Degree in Computer Engineering, Iran — *Iran*

Technical Skills

Theoretical Experience

-Experienced in: Machine learning, Data Analytics, Deep learning, Design of Algorithms, Big Data, Data structures and Databases

Programming and Scripting

-Experienced in: Python, SQL, HTML, CSS and LaTeX

- Familiar With Matlab, C#, C++ and Java

Libraries

-Experienced in: Pandas, Numpy, Scipy , keras, Scikit-learn, BeautifulSoup, Matplotlib, Seaborn and NetworkX

DataBases

-Experienced in: SQL and NoSQL databases like MongoDB, Cassandra, Elastic search, Neo4j, ClickHouse

Tools

-Experienced in: Big Data tools like Docker, Apache Superset, Hadoop, apache Kafka, apache hive, Kibana, DBeaver, Gephi, Git
- Familiar With Adobe Photoshop

Projects

Developing L-System Grammar *2022*
- Representing a 3D forest consisting of at least five different plant species by expressing the growth rules in 3D and considering the color changes in our rules.

Implementing Bio-Inspired Optimization methods *2022*
- Solving some common optimization benchmarks using the algorithms of Artificial Bee Colony, Firefly and Particle Swarm Optimization.

Examining the effect of the combination of economic and social analysis on the prediction of stock price fluctuations *2022*
- Finding the best model for predicting stock prices using deep neural networks, based on social data.

Deep Reinforcement Learning for Cartpole Environment *2021*
- Using deep neural networks to train our agent in cartpole environment from the gym.

An analysis of Telegram channels related to the dollar and its price *2021*
- Analyzing Telegram channels using NetworkX Library and Geghi software.

Generating music using LSTMs *2021*
- Using TensorFlow to implement a LSTMs for generating music task on the Chopin Frédéric and Mozart melodies.

Classifying images using Convolutional Neural Networks *2021*
- Investigating several configurations of CNNs to classify input images.

Launching a real time Big Data system for analysis of online Persian Twitter data *2021*
- Using the benefits of Docker to launch BigData Tools on a container to design a real-time data pipeline with visual dashboard.

Using Apache Spark for NLP, Log mining, Graph mining and Stock Market tasks *2021*
- Creating N-grams for a text file , Graph mining, Log mining and analyzing stock market with Spark SQL, Spark Dataframes and Spark GraphX.

Analyzing a real dataset with R programming language *2021*
- Performing statistical tests to check correctness of our guesses and claims about data.

Detecting Parkinson disease using signals of speech data with ensemble learning *2021*
- After cleaning data, resampling, and dimension reduction, use SVM and ensemble learning on our data to detect peoplewith Parkinson's disease.

Investigating the main reason for sales decline in a wood industry factory *2020*
- Analyzing data to determine a company's problem.

Languages

English *Fluent*
Persian *Native*

Academic Courses

Bio Inspired Computing, 19.4/20 *2022*
Advanced Robotics, 18.77/20 *2022*
Social Networks, 18/20 *2021*
Neural Networks and Deep Learning, 18.06/20 *2021*
Massive Data Analysis and Systems (Big Data), 19.5/20 *2021*
Statistical Inference, 17.8/20 *2021*
Machine Learning, 19.3/20 *2020*

Data Analysis, 17.75/20 *2020*