# Atefeh Mohammadi

All underlined terms are clickable links.

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### Education

#### **Alzahra University**

Tehran, Iran

B.Sc. in Computer Engineering

Sep. 2016 - Sep. 2021

- Machine Learning (A+), Data Structures (A+), Statistics and Probability (A), Engineering Mathematics (A), Signals and Systems (A+), Discrete Mathematics (A), Bachelor's Thesis Project (A+)
- Last two years' GPA: 17.79/20 (3.72/4.0)
- Overall GPA: 16.59/20 (3.38/4.0)

### Research Interests

- Machine Learning
- Deep Learning
- Algorithms Design & Data Structures

- Bioinformatics
- Natural Language Processing
- Social Media Analysis

# Research Experience \_\_\_\_

Mohammadi, A. and Keyvanpour, MR. "Comparing Classification Algorithms in Diagnosing Breast Cancer" (Under prep.)

• In this research, we implemented six classification models (including Decision Tree, Random Forest, Naive Bayesian, SVM, kNN, and Logistic Regression) using Python and RapidMiner Studio to compare their performance (including Accuracy, Precision, Recall, and F1 score) in predicting breast cancer in women based on several biological factors such as age, BMI, menopause, and blood components such as glucose, insulin, and leptin.

#### Skills

#### **Data Science**

EFFICIENT

- Experienced in programming with **Python** and **Java**
- Experienced in machine learning libraries such as Numpy, Pandas, Scikit-Learn, Matplotlib, Seaborn, and Scipy
- Advanced in SQL databases (MS SQL server, SQLite, and MySQL)
- Advanced at working with RapidMiner Studio and MATLAB
- Familiar with implementing **Neural Networks** using **Keras**
- Familiar with Natural Language Processing and NLTK
- Familiar with Reinforcement Learning

#### Miscellaneous

FAMILIAR

- Linux (Ubuntu and Mint) and Linux Server
- · Git, Github, and Gitlab
- · VMWare workstation, Cisco Packet Tracer, Modelsim, and Proteus
- **Django** framework

# Languages \_\_\_\_\_

Persian (Farsi) Mother tongue

• TOEFL iBT: 109 (Reading: 27, Listening: 27, Speaking: 28, Writing: 27)

- **English** GRE General: To be taken on December 6, 2022
  - FCE (First Certificate in English): Grade B

French Beginner

Arabic Beginner

# Work Experience \_\_\_\_\_

Data Scientist Tehran, Iran

QUERA Nov. 2020 - Jan. 2021

• Question validator for data science contests

Data Scientist Tehran, Iran

SENSO

Oct. 2020 - Nov. 2020

• Developed Python-based systems to crawl data from Iran's bourse market website

Back-end Developer

Tehran, Iran

YARA INFORMATION TECHNOLOGY

Jul. 2020 - Sep. 2020

- Wrote a Python script for playing Rock-Paper-Scissors game with the computer
- Made a web crawler to fetch and save advertisements from bama.ir with Python using Beautiful Soup module
- Experienced working with **Git** in a team

## **Selected Projects**

#### **Linear Regression and Classification**

PYTHON Dec. 2021

- Developed Linear Regression using pure Python and Numpy
- Used Scikit-Learn to implement classification models (Logistic Regression, SVM, kNN, Decision Tree, Random Forest, and Naive Bayesian). Full report and code are available at <u>Github</u>.

#### **Lung Images Classification**

Python Jan. 2021

• Used **Keras** to build Neural Networks to **classify CT scan images** of lungs based on their disease. Code is available at Github.

#### **NLP on DigiKala Comments**

**PYTHON** *Nov.* 2020

• Implemented Naive Bayesian classifier from scratch to classify comments on products. Code is available at Github.

#### **Twitter Data Collection**

PYTHON Sep. 2020

• Used **Tweepy** and Twitter API to crawl user's information, latest tweets, and search content based on keywords.

# **Teaching Experience**

#### Formal Languages and Automata Theory Teacher Assistant

Tehran, Iran

 ${\sf ALZAHRA\ University:}\ \underline{\sf Dr.\ Masoud\ Sagharichian}$ 

Sep. 2019 - Jan. 2020

- Held teaching sessions during the semester and taught course materials (with extra content on **RegEx** in **Python**)
- Assigned and graded homework during the semester and Taught installing and using <u>JFLAP software</u>

#### **Advanced Programming Teacher Assistant**

Tehran, Iran

Alzahra University : Dr. Mehran Sharghi

Jan. 2018 - Jul. 2018

· Held TA sessions and taught object oriented programming in Java programming language and Graded course projects

English Teacher Tehran, Iran

THE ONE LANGUAGE ACADEMY

Jul. 2016 - Apr. 2017

• Taught English language at elementary level

### **Volunteer Work**

#### **Alzahra University: Computer Engineering Scientific Society**

Tehran, Iran

PRESIDENT - HEAD OF RESEARCH COMMITTEE

Oct. 2017 - Nov. 2019

 Had two different roles in two consecutive academic years and was an executive staff in university events such as engineers day and weekly talks

### Honors & Awards

2016	<b>Won Tuition-Waiver Fund</b> , Won the government tuition-waiver fund for studying bachelor's of	Tehran. Iran
2016	science at Alzahra University	Tehran, Iran
	Ranked Among Top 1%, The Iranian University Entrance Exam (Konkoor) among more than	
	180,000 contestants	
2010	Ranked 3rd, The national students Mathematics Olympiad	Tehran, Iran

### Courses & Workshops \_\_\_\_\_

#### **Fundamentals of Machine Learning Course**

RAHNEMA COLLEGE Nov. 2021

• Learnt about Maximum Likelihood Estimation, Gradient Descent, Supervised Algorithms, Unsupervised Algorithms, and Neural Networks. View certificate

#### Task-Oriented course in Fundamentals of Python programming Course

QUERA COLLEGE Aug. 2020

• Certified with Perfect score in Fundamentals of Python. <u>View certificate</u>

**Network+ Workshop** Tehran, Iran

IEEE STUDENT BRANCH OF K.N. TOOSI UNIVERSITY OF TECHNOLOGY

Nov. 2017

• Learnt the basics of Computer Networks.

### Referees \_\_\_\_\_

#### Dr. MohammadReza Keyvanpour (Professor)

ALZAHRA UNIVERSITY

- Email: keyvanpour@alzahra.ac.ir
- Google Scholar : <u>link</u>

#### Dr. Abolfazl Toroghi Haghighat (Visiting Professor)

ISLAMIC AZAD UNIVERSITY OF QAZVIN

- Email: at\_haghighat@yahoo.com
- Google Scholar: link