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*
- Selected courses: Machine Learning (20/20), Human-Computer Interaction (20/20), Data Structures (18/20), Statistics and Probability (17/20), Linear Algebra (17.1/20), Signals and Systems (20/20), Discrete Mathematics (17/20), Bachelor's Final Project (19.5/20)
- **Last two years' GPA : 17.79/20 (3.72/4.0)**
- Overall GPA : 16.59/20 (3.38/4.0)

Research Interests

- Machine Learning   - Artificial Intelligence in Healthcare Systems   - Bioinformatics
- Social Media Analysis   - Algorithms Design & Data Structures   - Computer Vision

Research Experience

Mohammadi, A. and Keyvanpour, MR. **"Comparing Classification Algorithms in Diagnosing Breast Cancer"** (Ready to be submitted)

- 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) on 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

- Experienced in **Python** programming
- 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 in working with **RapidMiner Studio** and **MATLAB**
- Beginner in implementing **Neural Networks** using **Keras** and **PyTorch**
- Beginner in **Natural Language Processing** using **NLTK**
- Beginner in **Reinforcement Learning**

Network & OS

- Beginner in **Linux** (Ubuntu and Mint)
- Beginner in **Network+** and **Windows Server**

Others

- Familiar with **Java** programming
- Familiar with **Git**, Github, and Gitlab

Languages

Persian (Farsi)	Mother tongue
English	- **TOEFL iBT : 109** (Reading : 27, Listening : 27, **Speaking : 28**, **Writing : 27**)
	- GRE General : 306 (**Quantitative : 162**, Verbal : 144, **Analytical Writing : 4.0**)
	- FCE (First Certificate in English): Grade B
French	Beginner
Arabic	Beginner

Work Experience

Machine Learning Engineer
RAHNEMA COLLEGE

Tehran, Iran
Jun. - Aug. 2023

- Did a project on demand prediction of an online ride-hailing application based on New York City data, including training different machine learning models and comparing the outcomes. View Bootcamp certification

Machine Learning Contest Validator
QUERA

Tehran, Iran
Nov. 2020 - Jan. 2021

- Validated programming questions for Quera's data science contests; including solving the problems and detecting errors

Data Scientist
SENSO

Tehran, Iran
Oct. - Nov. 2020

- Developed Python-based systems to fetch, clean, visualize, and analyze data from Iran's bourse market website

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 Github.

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
ALZAHRA UNIVERSITY : DR. MASOUD SAGHARICHIAN

Tehran, Iran
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 JFLAP software

Advanced Programming Teacher Assistant
ALZAHRA UNIVERSITY : DR. MEHRAN SHARGHI

Tehran, Iran
Jan. - Jul. 2018

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

English Teacher
THE ONE LANGUAGE ACADEMY

Tehran, Iran
Jul. 2016 - Apr. 2017

- Taught English as a foreign language at the elementary level

Volunteer Work

Alzahra University : Computer Engineering Scientific Society
PRESIDENT - HEAD OF RESEARCH COMMITTEE

Tehran, Iran
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 | **Won Tuition-Waiver Fund,** Won the government tuition waiver fund for studying Bachelor of Science at Alzahra University | *Tehran, Iran* |
| 2016 | **Ranked Among Top 1%,** The Iranian University Entrance Exam (Konkoor) among more than 180,000 contestants | *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

Python for Data Science and Machine Learning Bootcamp

UDEMY   *Feb. 2021*

- Fully passed this Udemy online course

Task-Oriented course in Fundamentals of Python programming Course

QUERA COLLEGE   *Aug. 2020*

- Certified with Perfect score in Fundamentals of Python. View certificate

Referees

Dr. MohammadReza Keyvanpour (Professor)

ALZAHRA UNIVERSITY

- Email : keyvanpour@alzahra.ac.ir
- Google Scholar : link

Dr. Abolfazl Toroghi Haghighat (Visiting Professor)

QAZVIN ISLAMIC AZAD UNIVERSITY

- Email : haghighat@qiau.ac.ir
- Google Scholar : link

Dr. Hadi Shakibian (Assistant Professor)

ALZAHRA UNIVERSITY

- Email : h.shakibian@alzahra.ac.ir
- Google Scholar : link