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   • Computer Vision   • Algorithms Design & Data Structures
- Natural Language Processing   • Social Media Analysis   • Bioinformatics

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

- 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**
- Familiar with **Natural Language Processing** using **NLTK**
- Familiar with **Reinforcement Learning**

Network & OS

- Beginner in **Linux** (Ubuntu and Mint)
- Beginner in **Network+** and **Windows Server**
- Familiar with **VMWare workstation** and **Cisco Packet Tracer**

Others

- Familiar with **Java** programming
- Familiar with **Git**, Github, and Gitlab
- Familiar with using **Modelsim** and **Proteus**

Languages

Persian (Farsi)	Mother tongue
English	• **TOEFL iBT : 109** (Reading : 27, Listening : 27, Speaking : 28, Writing : 27)
	• GRE General : To be taken on May 8, 2023
	• 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 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
Tehran, Iran

ALZAHRA UNIVERSITY : 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 JFLAP software

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	**Won Tuition-Waiver Fund,** Won the government tuition-waiver fund for studying bachelor's 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*
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

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