



# Mohaddese Moghaddam

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📍 Iran



## Profile Summary

Computer Science Student | Technology Enthusiast | Problem Solver  
Fourth-year CS student at Amirkabir University with strong skills in C, C++, and Python. Passionate about causality, anomaly detection, and image analysis, combining theory and practice to solve complex problems and drive innovation in AI and software development.



## Education

### Diploma in Physics and Mathematics

Institute/School: Sampad(Brilliant talents)  
Zanjan, Iran  
2018 - 2021

### Computer Science

Institute/University: Amirkabir University  
Tehran, Iran  
2021 - Present  
GPA: 18.21



## Skills

Python



Machine learning



C++



Hardworking

Adaptable

Passionate about research and exploration

Committed to work

self-motivated

Data Analysis



Image processing(open CV)



C



Great scheduler

Enthusiastic about teamwork

Respectful toward deadlines

Detail-oriented

responsible



## Work Experience

### Data Analyst

Kelaasor

Iran

2024 - Present

#### Tasks and Achievements

- I participated in the Data Analytics Bootcamp at Kelaasor, where I gained hands-on experience with essential tools and techniques in data analysis. The program covered a range of topics, including statistics and probability, Python programming (with libraries such as pandas, numpy, Matplotlib, seaborn, and sklearn), SQL (with advanced concepts like window functions and CTEs), data visualization (principles and tools like Tableau), and business analytics (including KPI analysis, process mining, and cohort analysis). Additionally, I explored machine learning techniques such as regression, classification, clustering, decision trees, and neural networks. This bootcamp enhanced my ability to analyze, visualize, and extract meaningful insights from data.

### Teaching Assistant

Amirkabir University of Technology Iran

Iran

#### Tasks and Achievements

Teaching Assistant – Artificial Intelligence  
(2 semesters)  
professor M.GHATEE



## Language

### English

Reading



Writing



Speaking



Listening



## Certificates

### Data Analyst

## Projects

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### **Predicting Drug Effectiveness Against Cancer Using Machine Learning**

For: Amirkabir University

2024

This project applied machine learning to predict the effectiveness of cancer drugs by analyzing cell line attributes such as gene expression, methylation levels, and biological targets. Key tasks included handling missing data, encoding categorical features, and training ensemble models like CatBoost, contributing to advancements in precision oncology through computational and biological integration.

### **Topic Modeling and Keyword Extraction in News Articles Using NLP**

For: Amirkabir University

2024

This project focused on Natural Language Processing (NLP) to analyze news articles from the BBC dataset, categorized into five topics. Tasks included text preprocessing, feature extraction, and topic modeling using unsupervised learning algorithms. Key outcomes involved clustering articles into coherent topics and extracting relevant keywords for each category, advancing insights into text data analysis.

### **Feature Extraction and Image Stitching in Image Processing**

For: Amirkabir University

2024

This project explored feature extraction techniques like SIFT and ORB and their application in identifying keypoints in images. It also implemented image stitching with OpenCV to combine overlapping images into a single panorama, highlighting practical uses of feature extraction and image processing in computer vision.

### **Graph-Based Machine Learning: Node Embedding and Link Prediction**

For: Amirkabir University

2024

This project applied machine learning techniques to graph data, focusing on tasks such as node embedding using Node2Vec, clustering nodes with K-Means, and visualizing clusters with t-SNE. It also included link prediction using the Adamic-Adar similarity measure. The project explored graph analysis, embedding techniques, and predictive modeling within graph structures.

### **Optimizing Sales and Discounts with Genetic Algorithms**

For: Amirkabir University

2024

This project applied Genetic Algorithms to the Superstore Sales dataset to optimize profit by finding the best combination of discounts and product quantities. Key tasks included data preprocessing, handling missing values, and implementing selection, crossover, and mutation to uncover optimal sales strategies.

# Exploratory Data Analysis and Visualization for Rental Property Data

For: Amirkabir University

2024

This project analyzed a dataset of rental listings in the U.S., focusing on cleaning data, handling missing values, and visualizing key patterns using Seaborn and Matplotlib. The analysis uncovered trends in rental prices, property sizes, and geographic factors, laying the groundwork for predictive modeling.



## Courses

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### **Data Mining (Associated with Amirkabir university)**

2024-25

This course is offered by Dr. Fatemeh Shakeri at Amirkabir university .

### **Artificial Intelligence (AI)(Associated with Amirkabir university)**

2024-25

This course is offered by Dr. Mehdi Ghatee at Amirkabir university .

### **Image Preprocessing(Associated with Amirkabir university)**

2024-25

This course is offered by Dr. Mostafa Shamsi at Amirkabir university .

### **Data Structures and Algorithms(Associated with Amirkabir university)**

2024

This course is offered by Dr. Ardeshir Dolati at Amirkabir university .

### **Machine learning (Associated with Amirkabir university)**

2024

This course is offered by Dr. Ehsan Nazerfard.