# KIAVASH FOULAD

#### **Computer Science Student**



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## **PROJECTS**

# Optimization of K-Means Clustering using a Genetic Algorithm

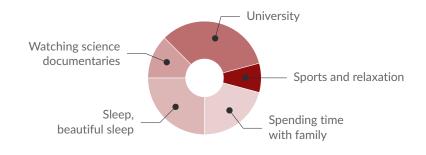
#### **University Project**

- Implemented a Genetic Algorithm from scratch to optimize data clustering, improving upon the standard K-Means approach by finding more effective centroids.
- Engineered the core GA components (selection, crossover, mutation) and validated performance by benchmarking against Scikit-learn's K-Means.
- **Technologies Used:** Python, Pandas, Scikit-learn, NumPy, Matplotlib.

# ML Pipeline for Mental Illness Diagnosis Prediction University Project

- Engineered an end-to-end prediction pipeline using a ColumnTransformer to preprocess mixed data types and SMOTE to handle class imbalance.
- Compared multiple classifiers (Random Forest, SVM, KNN) and validated the top performer with 5-fold cross-validation to ensure robust and reliable results.
- **Technologies Used:** Python, Pandas, Scikit-learn, imblearn, Matplotlib.

# A DAY OF MY LIFE



# MY LIFE PHILOSOPHY

"Continuous learning is the best algorithm for personal and professional growth."

### STRENGTHS

Hard-working

Eye for detail

Resilience in Complex Tasks

Machine Learning

Data Science

Python

# **LANGUAGES**

**Farsi** 

**English** 

## **EDUCATION**

B.Sc. in Computer Science Amirkabir University

☐ Sept 2021 - June 2026