### Mohammadtaha Amini

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#### Education

## ISLAMIC AZAD UNIVERSITY - CENTRAL TEHRAN BRANCH

## BSc in Computer Science, GPA 18.34/20.00(3.78/4.0)

Expected Q1 2026

Relevant Coursework: Advanced Programming, Introduction to Data Mining, Data Structure & Algorithms, Fundamentals of Matrices and Linear Algebra, Principles of Software Design, Linear Optimization, Artificial Intelligence, Non-linear Optimization, Fundamentals of Theory of Computation, Compilers

# SALAM HIGH SCHOOL

Experimental Science, GPA 19.32/20.00(3.86/4.0)

Tehran, Tehran Province 21st June 2022

# **Relevant Personal Projects**

# **Bot Detection Using Multi-Layer Perceptrons**

Initially coded for a university event, preprocessed a JSON dataset and used a common MLP model for bot detection

# Implementing LIME (Local Interpretable Model-Agnostic Explanation) on CNN Classifiers

Virus Microscopy Images (22 classes) and Mushroom Species Dataset

# Tabular Data Augmentation via Non-Linear Interpolation for A Prediction Task

Implemented non-linear interpolation methods (Multiquadric, Inverse and Gaussian RBF) to augment sparse tabular data

## Wildfire Image Classification Using a Custom CNN Architecture

Designed a CNN architecture optimized for wildfire image classification

## **GNB-MLP Hybrid Model for Classification**

Fused Gaussian Naive Bayes (GNB) with Multilayer Perceptron (MLP) to improve classification accuracy on low-correlation synthetic data

### **Skills**

### Language:

• **English**: IELTS Overall Band Score <u>8.0</u> (Listening <u>8.5</u>, Reading <u>8.5</u>, Writing <u>7.0</u>, Speaking 8.0)

#### **Technical:**

Programming Languages: Python, R, SQL(MySQL), C++

- Data Analysis: Numpy, Pandas, Matplotlib, Seaborn, SciPy
- Machine Learning: Pytorch, LIME and SHAP, Scikit-Learn, Pillow, PySpark
- Quantum Computation: Fundamentals of Quantum Computation, PennyLane
- Mathematics: Linear Algebra, Theory of Probability, Optimization, Numerical Analysis

### **Relevant Courses**

Mastering Machine Learning with Python: A Comprehensive Online Course – <u>Faradars</u> Python Libraries for Machine Learning and Deep Learning – <u>Faradars</u> Web Design Pack – Academic Center for Education, Culture and Research (<u>ACECR</u>) Medical Image Processing and Classification with Python – <u>Faradars</u>

#### **Honors**

Consistently distinguished student each semester during my Bachelor's program