

## Ehsan Mokhtari

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Github: <a href="https://github.com/sherlannn">https://github.com/sherlannn</a>

Gender: Male Date of birth: 22/06/1997 Nationality: Iranian

#### **ABOUT ME**

I am a Data Science Master's student at the University of Sapienza with a strong background in Computer Engineering. My expertise includes Python, R, Machine Learning, Neural Networks, and Computer Vision. I've worked on projects including predictive modeling, time series forecasting, and various NN implementations. Through startup competitions and training camps, I've developed strong problem-solving, collaboration, and leadership skills.

#### **EDUCATION AND TRAINING**

[ 10/2023 – Current 1

M.Sc Data Science

University of Sapienza https://www.uniroma1.it/it

City: Rome | Country: Italy

[2016 - 2021] B.Sc Computer Engineering

**University of Tabriz** https://www.tabrizu.ac.ir/

Address: 29 Bahman Blvd, 5166616471, Tabriz, Iran

## **WORK EXPERIENCE**

[ 10/2020 – 12/2020 ] **Software Engineer Internship** 

Rural Cooperatives Organization of Iran https://www.corc.ir/

City: Marand | Country: Iran

Gaining experience in software development, hardware integration and troubleshooting, which resulted in enhancing my technical skills in real-world projects and teamwork.

#### **LANGUAGE SKILLS**

Mother tongue(s): Azerbaijani, Persian

Other language(s):

**English** 

LISTENING C1 READING C1 WRITING C1

SPOKEN PRODUCTION C1 SPOKEN INTERACTION C1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

#### **PUBLICATIONS**

[ 2020 ]

## Color Image Encryption Algorithm Based on Three-Dimensional Chaotic Economic Map

Reference: Dr. Mohammad Asadpour, Ehsan Mokhtari

5th international conference on applied research in computer, electrical and information technology / Avicenna international community college LLC, Georgia

#### **DIGITAL SKILLS**

## My Digital Skills

Programming Languages (Python, R, C/C++, Matlab) | Data Analysis & Manipulation (SQL, Numpy, Pandas) | Data Visualization (Matplotlib, Seaborn) | Machine Learning Frameworks (Scikit-learn, TensorFlow, Keras, PyTorch) | Deep Learning & Neural Networks | Database Management Systems(PostgresSQL, Neo4i, MongoDB) | Image Processing (OpenCV) | Natural language Processing | Operating Systems (Linux, Windows) | Version Control (Git) | Project Management Tools (Trello) | Microsoft Office

## **PROJECTS**

### [ 12/2023 – 01/2024 ] Graph Analysis of Citation and Collaboration Networks in Academic Research

This project analyzes citation and collaboration networks in academic research. We focus on the 10,000 most cited papers to construct a directed citation graph and a weighted collaboration graph, revealing citation relationships and author collaborations. The analysis includes clustering, studying influence, and identifying key research topics.

Link: https://github.com/sherlannn/Sapienza Universita di Roma/tree/main/ADM/ADM HW5

Building ensemble ML model to predict shot success in the Kobe Bryant shot selection [ 12/2023 – 12/2023 ] dataset using various algorithms.

> This project employs machine learning algorithms to predict Kobe Bryant's shot success in the NBA, covering data preprocessing, EDA, feature engineering, and algorithm implementation, with a final step exploring a voting ensemble for enhanced accuracy.

Link: https://github.com/sherlannn/Data Science/tree/main/Kobe Bryant Shot Selection

## [ 12/2023 – 12/2023 ] Recommendation system on "Netflix audience behaviour - UK movies" dataset

Implementing our version of the LSH algorithm, which will take as input the user's preferred genre of movies, find the most similar users to this user, and recommend the most watched movies by those who are more similar to the user.

Link: https://github.com/sherlannn/Sapienza Universita di Roma/tree/main/ADM/ADM HW4

[ 11/2024 – 11/2024 ]

Building Neural Network (MLP) with Custom Trainable Activation Functions from Scratch in

Built an MLP neural network from scratch using JAX, with custom trainable activation functions. The project involved processing the Iris dataset, implementing a generalized activation function, and training the model using gradient descent and automatic differentiation, showcasing custom neural network components and advanced training techniques.

Link: https://github.com/sherlannn/Sapienza\_Universita\_di\_Roma/tree/main/NNDS/HW1

[ 04/2024 - 06/2024 ]

# Mental Health Data Analysis with Relational and Graph Databases

Designed a mental health database from scratch using PostgreSQL, optimized queries, and derived insights. Also built a Neo4j graph database with the same dataset to explore relationships and uncover trends.

Link: https://github.com/sherlannn/Sapienza Universita di Roma/tree/main/DM

### [ 2022 ] Punkypops NFT Project

Implementing 8750 unique, programmatically-generated NFTs with distinct metadata for each using Node.js, analysing metadata for assigning price for each NFT according to its attributes using Python, storing on IPFS decentralized data-storage platform, deploying on Polygon blockchain as ERC-721 tokens using smart contracts and Solidity, publishing on opensea.io marketplace.

Link: <a href="https://opensea.io/collection/punkypoops">https://opensea.io/collection/punkypoops</a>

# **CERTIFICATES AND COURSES**

Data Scientist with Python / Machine Learning Scientist with Python / Advanced Deep Learning in Python / Data Analysis and Visualization with Python / Image Processing with Keras and OpenCV / Advanced SQL for Data Science

Scientific Computing with Python / Natural Language Processing and Feature Engineering for NLP in Python / Essential Math and Applied Algorithms for Machine Learning

## TRAINING CAMPS AND **COMPETITIONS**

#### [ 11/2024 - 11/2024 ] **BESTech'24 Rome Competition**

Developed a ChatGPT-based assistant for the BESTech'24 competition, focused on occupational law. The chatbot answered legal queries and analyzed work contracts, helping users access relevant legal information easily.

## [ 07/2024 - 07/2024 ] **Sapienza-KPMG Forecasting 2024 - Training Camp**

Competed in the Sapienza-KPMG Forecasting 2024, focusing on predicting sales volume using time series data. Applied Machine Learning and Time Series Forecasting techniques, considering factors like seasonality and trends. Used Time-Fold Cross Validation to improve accuracy in forecasting the next four months of sales.

## [ 2024 – 2024 ] dock3 - The Startup Lab 7th Edition

Participated in dock3's Startup Lab competition, initially exploring physiognomy in fashion and HR, then pivoted to building a platform for matching candidates to jobs based on their skills. Due to time constraints and resource challenges, the project remained unfinished, but it offered valuable insights into startup development and team collaboration.

## COMMUNICATION AND IN-**TERPERSONAL SKILLS**

Capable of both teamwork and individual-work / Strong communication and collaboration skills / High responsibility / Problem-solving / Leadership / Flexibility