## **MATIN SAJADI**

## Machine Learning Engineer

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Yazd, Ardakan

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#### **HIGHLIGHTS**

- I am a computer engineering graduate with the ability to solve complex challenges and a high motivation to create innovative solutions in the field of artificial intelligence.
- Working on projects focusing on machine learning, deep learning, neural networks, and natural language processing activities.
- Proficient in Python and experienced in using TensorFlow and PyTorch.

### RESEARCH INTERESTS

- Natural Language Processing
- Large Language Models
- Computer Vision

#### **EDUCATION**

Payam Noor University Yazd, Iran **Bachelor of Software Engineering** 

#### **WORK EXPERIENCE**

#### **Machine Learning Engineer**

5+ years in development and deployment of machine learning algorithms.

- Developed and deployed advanced Natural Language Processing (NLP) and Computer Vision models, contributing to project success.
- Led a team in the research and implementation of cutting-edge machine learning algorithms, resulting in improved model accuracy by 15%.
- Collaborated closely with cross-functional teams to translate business objectives into technical solutions, ensuring alignment with project goals.

#### **PROJECTS**

#### Convolutional Neural Network for Mask Detection using Transfer Learning

- Objective: Enhancing the accuracy of mask detection by applying transfer learning on the dataset.
- Responsibilities and Achievements:
- 1. Transfer Learning: Implementing transfer learning techniques on the mask detection dataset.
- 2. Face-Based Mask Detection: Training the model to detect the presence or absence of masks with a focus on facial features.
- 3. Approximate Age Detection: Adding the capability to estimate the approximate age of individuals based on facial features.
- $4. \ \ Gender \ Recognition: Training \ the \ model \ to \ recognize \ gender \ with \ an \ emphasis \ on \ analyzing \ facial \ characteristics.$
- 5. Emotion Detection: Implementation and training of a model to detect emotions through facial analysis.
- Technologies and Tools:
  - Utilizing pre-trained models to improve accuracy.
  - o Programming Language: Python.
  - · Key deep learning libraries such as TensorFlow and Keras.

#### Results:

- Increased accuracy in mask detection through the application of Transfer Learning.
- Achieved capabilities in age estimation, gender recognition, and emotion detection based on facial analysis.

This project demonstrates proficiency in the field of deep learning and the ability to execute diverse projects related to image and facial recognition.

#### **Recommender System**

- Objective: Developing a recommender system using online retail data and a clustering algorithm.
- · Project Description:
  - o Clustering Algorithm: Utilizing a clustering algorithm to categorize products based on user purchasing patterns.
  - Product Recommendations by Clusters: Identifying groups of products with the highest sales and providing recommendations to users who have not
    purchased products from these groups.
- · Results and Impact:
  - o Improving user shopping experience through targeted recommendations.
  - o Increasing sales in product groups using the recommender system.
- Technologies and Tools
  - Employing a clustering algorithm for analyzing online retail data.
  - Implementation of the system using suitable languages and tools for data processing and recommendation.

This project demonstrates the ability to analyze online retail data and create a recommender system based on user purchasing behavior.

#### **SKILLS**

- Programming: Python, C, C++, Java
- Frameworks: PyTorch, Tensorflow, OpenCV
- NLP: NLTK, Transformers
- Additional Expertise: Deep Learning, Computer Vision, Data Scientist, Data Analyst, Data Mining
- Tools and Technologies: Git, PostgreSQL, Linux

#### **CERTIFICATES**

- <u>Python Programming Python Programming (DataCamp)</u>
- Python FundamentalsPython Fundamentals (DataCamp)
- SQL FundamentalsSQL Fundamentals (DataCamp)
- Importing & Cleaning Data with PythonImporting & Cleaning Data with Python (DataCamp)
- Data Visualization with PythonData Visualization with Python (DataCamp)
- Data Analyst with PythonData Analyst with Python (DataCamp)
- Data Manipulation with Python Data Manipulation with Python (DataCamp)

# SELECTED COURSES

Advanced Programming