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## SKILLS

### Programming Language :

- Python
- C++ (basic)
- JavaScript (basic)
- HTML, CSS

### AI :

#### Computer Vision :

- Object Detection & Recognition (YOLO, Faster RCNN, etc)
- Face Detection & Recognition (VGG-Face, Google Face, etc)
- Segmentation (UNet, Mask-RCNN)
- GANs

### NLP :

- Sentiment Analysis
- Language Models

### Speech Recognition :

- speech-to-text
- Voice activity detection (VAD)

### Reinforcement Learning :

- Deep Q Network
- Actor - Critic

### DataBase

- PostgreSQL, MySQL
- MongoDB
- Redis

### Frameworks and Libraries :

- Pytorch, Tensorflow, Keras
- Transformers
- OpenCV, Scikit-Learn
- NLTK, Spacy
- Pandas, Numpy, Matplotlib
- Django, FastAPI, Flask
- Jquery, bootstrap
- Celery, RabbitMQ

### Concepts :

- OOP
- Design Patterns
- Agile

### Others :

- GIT : github, gitlab
- Docker
- ArcGIS
- Fluent in English

## INTERESTS

- Computer Vision
- NLP
- Speech
- Multi Agent Reinforcement Learning

Ali Amini Bagh

## Machine Learning Engineer

Innovating with AI and Machine Learning to drive smarter decisions and transformative solutions.

### About Me

I'm a graduate of the Faculty of Geodesy and Geomatics Engineering at Khaje Nasir Toosi University of Technology, focused on machine vision and NLP. I develop models to extract insights from visual and textual data. I'm also skilled in building scalable applications using frameworks like FastAPI and Django, bridging research with practical solutions.

### Work Experience

#### Machine Learning Engineer

Since August 2023 **Tosan** Tehran

- Developed cutting-edge AI applications that optimized business processes and enhanced customer experience.
- Designed and implemented machine learning models for various use cases, including natural language processing and computer vision.
- Collaborated with stakeholders to identify business challenges and provide AI-driven solutions, resulting in increased efficiency and cost savings.

#### Co-Founder of Sewane

Since May 2024 **Sewane** Tehran

**Sewane** is a cutting-edge **Automatic Speech Recognition (ASR)** system designed for **Persian** and **Kurdish** languages. It offers accurate, real-time transcription, supporting various dialects within these languages. With high precision and adaptability, Sewane is ideal for voice-driven applications such as virtual assistants, customer service automation, media transcription, and more. [Website](#)

#### Multimodal Detection and Recognition Web Service

2022

Developed a web service utilizing FastAPI for detection and recognition tasks. The user-friendly UI allows seamless image and video uploads for analysis with advanced models, including facial emotion recognition, human, fire, gun, smoke, knife, and fight detection. Future updates will include text and speech recognition. [Link To Project](#)

#### Cards Information Extraction

From 2020 to 2021

Projects to extract cards information with OpenCV and object detection algorithms such as YOLO and prepare the outputs to use in the OCR system

- [ATM Card Information Extraction](#)
- [Iranian National Card Information Extraction](#)

#### Scalable REST API Services

From 2021 to 2022

dockerized, convenient, easily deployable, and scalable FastAPI for Motion Detection, Tracking, and Classification in images and videos

- [Age-Gender Recognition FastAPI-Service](#)
- [Violence Recognition FastAPI-Service](#)

#### Teacher Assistant

From 2018 to 2020 **K.N.Toosi University**

Teaching "Essentials of Programming Languages : python, Agent-based modeling and Computational intelligence courses

### Education

#### BSc : Geomatics

2018 **K.N.Toosi University** Tehran

#### MSc : Geographic Information Systems (GIS)


2021 **K.N.Toosi University** Tehran


- GPA 18.32 (3.88/4.0 as calculated by WES)
- thesis : "Planning of taxi sharing with different capacities using deep reinforcement learning"

## PERSONAL SKILLS

- Fast Learner and Motivated
- Creative Spirit

## Social networks

 @aliaminibagh

 @aliaminibagh

## Certifications

### AI Product Management

From August 2024 to September 2024 [University Of Tehran](#) Tehran

Participated in an intensive AIPM Bootcamp covering the complete roadmap for becoming an AI Product Manager. Acquired skills in aligning AI technologies with business objectives, understanding AI development cycles, and managing AI product lifecycles from ideation to deployment.

### Workshops

2021 [K.N.Toosi University](#)

- Elementary and advanced deep learning
- Data mining with python

### Courses

From 2021 to 2022 [Coursera](#)

- Advanced Computer Vision with TensorFlow
- Natural Language Processing with Classification and Vector Spaces
- Python Project: pillow, tesseract, and opencv

## Publications

### journal of Information and communication Technology in policing (JICTP)

2021 Iran

Provide a deep reinforcement learning algorithm in pursue-evasion problem : a case study of smart police