Mohammad Mahdi **Maghouli**

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Education

B.Sc in Computer Engineering	*Tehran, Iran*
SHAHID BEHESHTI UNIVERSITY	*Sept. 2017 - Expected Feb. 2022*

- **CGPA: 3.54/4**

Relevant Work Experience

Data Engineer and Front-end Developer (Remote)	*Manchester, UK*
SAFE STREAM LTD 🔗	*Jul 2020 - Aug 2021*

- Developed a **large scale (over 15,000 classes), imbalance, and accurate (over 98%) object recognition model** to detect grocery shelf images' inventory with the help of ResNet and Markov models.
- Developed a **web application to semi-automatically annotate data**, implemented with **React, Django, and Postgresql**.
- Developed a super-fast **E-commerce web application** to make the **entire grocery store online** based on the **store's shelf images in less than 15 minutes**
- Developed a real-time Vision-Based Quality Control system for production lines. (especially to detect anomalies and defects)

Founder and Developer	*Tehran, Iran*
MOFID EDUCATION CHAMPION (MECH)	*Nov 2012 - Sep 2016*

- Developed and managed an **online course provider** specifically for high school students in Iran.

Internship

Safe Stream LTD 🔗	*Manchester, The UK*
COMPUTER VISION R&D	*Apr 2020 - Jul 2020*

- Analyzed several papers in the field of Computer vision (including image segmentation and large-scale object recognition).
- Developed object detectors based on **Yolo, CNN, R-CNN and faster R-CNN algorithms**

DigiKala-Next Winter AI Bootcamp 🔗	*Tehran, Iran*
DIGIKALA-NEXT	*Dec 2019 - Feb 2020*

- Developed an ensemble model to detect fraud comments and pursued professional education within the field of NLP.

Skills

Programming Languages	Java, Python, C/C++, MATLAB
Web Developement	React, HTML, CSS, JavaScript, TypeScript Flask
ML Toolkit	Tensorflow, Keras, Pytorch, scikit-learn
Frameworks	MATLAB and Simulink
Libraries	pandas, NumPy, Matplotlib, CV2, Pillow
Databases	MySQL, PostgreSQL
Developer Tools	Git, Docker, Amazon AWS, Elasticsearch, Kibana

Selected Projects

Detect explicit content in videos (Fight and Alcohol Detection) 🔗	
PYTHON, PYTORCH,	*Fall 2020*

- Developed a model to detect **explicit content** (such as alcohol use and fight scenes) **in movie** frames with an accuracy of **more than 97**% using the **ResNet**
- Employed a **pace estimator** to increase fight detection accuracy

Target Advertising, Audience classification 🔗	
PYTHON, SCIKIT-LEARN	*Spring 2020*

- Developed and analysed machine learning models to classify and **target customers** using xgboost classifier.
- Done feature engineering and data visualization on over 40000 real estate data and developed models for targeting audiences.

Document Classification

PYTHON, TENSORFLOW, SCIKIT-LEARN, BERT, *Fall 2020*

- Using Deep Learning and Natural Language processing to classify more than 150,000 Persian news documents into six main classes and 25 sub-classes with 91% accuracy.

Honors & Awards

2021	**Qualified for best CE Bachelor Thesis in spring semester 2021**, Shahid Beheshti University	*Tehran, Iran*
2017	**Ranked in the Top 0.7% of participants out of 180,000 candidates** , Nationwide Iranian University Entrance Exam, Mathematics and Physics branch.	*Tehran, Iran*
2020	**Ranked 3rd**, DigiKala, Fraud Detection Contest in Quera website.	*Tehran, Iran*
2020	**Ranked 9th among 703 contestants**, Rahnema-Collage, Machine Learning Contest in Quera website.	*Tehran, Iran*

Certifications

2020	**IEEE Certificate of Completion, Introduction to Deep Learning for Natural Language Processing** ⚭, IKT2020
2019	**Participate in Asia Pacific Innovation Forum 2019: Technology Start-ups for Sustainable Development** ⚭, United Nations ESCAP
2015	**TRIZ Methodology (Level B - 24 hours) Certificate of attendance** ⚭, Altshuller Institute TRIZ