

Yara Mohammadi Bahram


1 June 1997

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Last update: 17 sept, 2022

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EDUCATION

2020-Ongoing	Master of Science in Artificial Intelligence & Robotics University of Tehran, Tehran, Iran GPA: 18.83/20 Ranked 31st among +14,000 participants in Computer Engineering nationwide test for Masters studies.
2015-2020	Bachelor of Science in Computer Engineering Isfahan University of Technology, Isfahan, Iran Last year GPA: 17.98/20

INTERESTS

Learning Theory - Trustworthy ML (Explainability, Fairness, Robustness) - Causal Inference

PUBLICATIONS

TO BE SUBMITTED:	<i>Y Deldjoo, YM Bahram, M Varasteh, N Tintarev</i> Fairness auditing through the lens of Counterfactual Explanations <i>Draft available</i>
UNDER PREPERATION:	<i>YM Bahram, MA Sadeghi</i> Post-Regularization: A survey on generalization after overfitting <i>Draft available</i>

RESEARCH EXPERIENCE

Researcher 05/2022 - Ongoing	Polytechnic University of Bari Italy (Online) Exploring causal intervention for bias mitigation and fairness in recommender systems. (Work in Progress) Exploring fairness auditing via counterfactual explanations in classification models.	Dr. Yashar Deldjoo
Research Assistant 06/2021 - Ongoing	University of Tehran Computational Modeling and Machine Learning Lab Decomposing and isolating implicit learning objectives from the loss term during the training of Deep NNs (Work in Progress) Explaining the effect of adversarial perturbations <i>on each layer</i> of deep models via self-supervised finetuning of the layer. Devising a systematic review on the concept of post-training regularization.	Dr. Amin Sadeghi
Research Intern 08/2019 - 02/2020	Isfahan University of Technology Hardware Design & Image Processing Lab Investigating different theoretical methods for hardware optimization and implementation of deep learning architectures. <i>Bachelor Thesis</i> : Patched-Based CNN for Instance Segmentation of Pathology Images	Dr. Shadrokh Samavi

TEACHING EXPERIENCE

Mentor 07/2022 - 08/2022	HooshBaaz Data Analytics Bootcamp  University of Tehran Group collaboration with 7 other mentors for educating 80 students during 14 data science workshops.
Teaching Assistant 07/2022 - 08/2022	Neuromatch Academy Deep Learning Summer School USA (Online) Selected as TA for full-time supervision on the learning of 16 students from different countries, and leading 2 research group projects during 3 weeks.
Teaching Assistant 09/2021 - Ongoing	Graduate University Courses University of Tehran <ul style="list-style-type: none">Machine Learning Dr. Mohammad-Reza DehaqaniDeep Generative Models (Lead) Dr. Mostafa TavassolipourAdvanced Deep Learning Dr. Amin SadeghiData Analytics & Visualization (Lead) Dr. Amin Sadeghi
Personal 01/2022	Publishing a free Machine Learning course online   Created over 2 hours of tutorials in Persian language with Hands-On exercises.

HIGHLIGHTED PROJECTS

Ongoing freelance project **Dr. Mostafa Tavassolipour**

- Developing a system for analysis and prediction of Tehran Municipality's salary.

Deep Learning projects

- Self-supervised learning analysis (SimCLR, CPC, Unsupervised representation learning, PixelCNN)
- Generative model analysis (BigBiGAN, InfoGAN, VQ-VAE, TWR VAE)
- Embedding experiments (Transfer Learning, Visual Question Answering, Multimodal Classification)

Data projects

- Launching a real-time BigData system for monitoring, analysis, and prediction of Persian Tweets.
- Working with NoSQL Databases (MongoDB, Neo4j, Cassandra, and Elasticsearch).
- Using Spark for text analysis, log-file mining, stock market analysis, and wikipedia analysis.
- Spotify data crawling, analysis, and music recommendation.

SELECTED COURSES

Reinforcement Learning	Ongoing	Data Analytics & Visualization	17.25
Optimization	Ongoing	Big Data	18.9
Statistical Inference	18.4	Database Design	18.5
Advanced Deep Learning	19.75	Artificial Intelligence	20
Machine Learning	19.6	Multimedia Systems	20

SKILLS

PROGRAMMING LANGUAGES	Python, R, MATLAB, C/C++
PYTHON FOR ML	NumPy, Pandas, Matplotlib, Seaborn, Scikit-learn
DEEP LEARNING	Pytorch, Tensorflow
BIG DATA	SQL, NoSQL, Spark, Hadoop, Kafka
OTHER	Crawling, Linux, Docker, Git, LaTeX

LANGUAGES

ENGLISH:	107 TOEFL R30 L26 S26 W25 (expired, will retake on 15 Oct) 326 GRE Q167 V159
PERSIAN & KURDISH:	Mother tongue