

IMAN MIRZADEH

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RESEARCH INTERESTS

Machine Learning	Deep Learning	Continual Learning
Model Optimization	Learning Under Distribution Shift	Causal Inference

EDUCATION

Washington State University Doctor of Philosophy, Computer Science, EECS Department	Aug. 2018 - May 2023 (expected) current GPA: 3.89/4.00
Washington State University Master of Science, Computer Science, EECS Department Thesis: "Improved Knowledge Distillation for Deep Neural Networks"	Aug. 2018 - Dec. 2020 GPA: 3.89/4.00
University of Tehran Bachelor of Science, Information Technology Engineering, ECE Department Thesis: "Design and Implementation of a Deep Learning Based Question Answering System"	Aug. 2013 - Mar. 2018 GPA: 16.33/20.00

FIRST-AUTHOR PUBLICATIONS

CL-Gym: Full-Featured PyTorch Library for Continual Learning.
The IEEE Conference on Computer Vision and Pattern Recognition (CVPR) Workshops, 2021.
S.I. Mirzadeh, H. Ghasemzadeh

Linear Mode Connectivity in Multitask and Continual Learning.
Ninth International Conference on Learning Representations (ICLR), 2021.
S.I. Mirzadeh, M. Farajtabar, R. Pascanu, D. Gorur, H. Ghasemzadeh

Understanding the Role of Training Regimes in Continual Learning.
Thirty-fourth Conference on Neural Information Processing Systems (NeurIPS), 2020.
S.I. Mirzadeh, M. Farajtabar, R. Pascanu, H. Ghasemzadeh
***The abstract version presented at the ICML Workshop on Continual Learning, 2020.*

Dropout as an Implicit Gating Mechanism For Continual Learning.
The IEEE Conference on Computer Vision and Pattern Recognition (CVPR) Workshops, 2020.
S.I. Mirzadeh, M. Farajtabar, H. Ghasemzadeh
***Selected for oral presentation and received runner-up best paper award.*

Optimal Policy for Deployment of Machine Learning Models on Energy-Bounded Systems.
Twenty-Ninth International Joint Conference on Artificial Intelligence (IJCAI), 2020.
S.I. Mirzadeh, H. Ghasemzadeh

Improved Knowledge Distillation via Teacher Assistant.
Thirty-Fourth AAAI Conference on Artificial Intelligence (AAAI), 2020.
S.I. Mirzadeh, M. Farajtabar, A. Li, N. Levine, A. Matsukawa, H. Ghasemzadeh

LabelMerger: Learning Activities in Uncontrolled Environments.
International Conference on Transdisciplinary AI (TransAI), 2019.
S.I. Mirzadeh, J. Ardo, R. Fallahzade, B. Minor, L. Evangelista, D. Cook, H. Ghasemzadeh

EXPERIENCE

Washington State University - Graduate Research Assistant • Member of Embedded & Pervasive Systems Lab (EPSL). • Technologies I used: PyTorch, Tensorflow, PyTorch Lightning, OpenCV.	Aug. 2018 - Present
Sokhan AI - Machine Learning Engineer • Technical Lead. Worked on context-aware natural language understanding engine. • Technologies I used: Scikit-Learn, Tensorflow, NLTK, Spacy, Redis, PostgreSQL, MongoDB.	Aug. 2017 - Aug. 2018

- Product: real-time streaming service with social network features.
- Technologies I used: Python, Nodejs, Redis, MongoDB, PostgreSQL, Docker.

HONORS AND AWARDS

- (2020) Recipient of the [runner-up best paper award](#) in CVPR Workshop on Continual Learning.
- (2020) [Top 2%](#) of stackoverflow community contributors with a positive impact on more than 1,500,000 people.
- (2018) Received Fellowship for CS PhD program from Washington State University.
- (2017) Achieved 92nd percentile on the quantitative reasoning section of the GRE General exam.
- (2017) Best B.Sc. thesis project award in the industrial field of the University of Tehran.
- (2017) Best B.Sc. thesis project award in the cognitive science field of the University of Tehran.
- (2013) Top 99.7th percentile in national university entrance exam among 291,956 participants.

SKILLS

Programming Languages	Python, C, C++, Bash, R, Matlab, Java, SQL
Databases	PostgreSQL, MySQL, Redis, MongoDB, Elasticsearch
Frameworks & Libraries	Numpy, Scipy, Pandas, Pytorch, Tensorflow, Keras, Scikit-Learn, Apache Spark, Apache Hadoop, Matplotlib, Seaborn, Spacy, NLTK
Software Engineering Tools	Git, Docker, Kubernetes, vim, L ^A T _E X

OPEN SOURCE PROJECTS

Stable Continual Learning: Pytorch implementation of the paper "Understanding the Role of Training Regimes in Continual Learning".

Improved Knowledge Distillation: Pytorch implementation of the paper "Improved Knowledge Distillation via Teacher Assistant".

TF_Seq2Seq: Tensorflow implementation of Recurrent Neural Network(RNN) based sequence to sequence model with attention mechanism.

Persian News Spider: Scrapy based web crawlers for extracting text from top Persian news sites.

GloVe Embedding : Pre-trained GloVe word embedding for Persian language.

RNN Language Model: Word-based language model using a recurrent neural network.

UNIVERSITY COURSES

Linear Algebra (4/4)	Advanced Linear Algebra (4/4)
Probability and Statistics (4/4)	Statistical Theory I (4/4)
Convex & Nonlinear Optimization (4/4)	Data Structures (4/4)
Neural Networks & Deep Learning (4/4)	Machine Learning (4/4)
Algorithm Design (4/4)	Advanced Algorithms (4/4)
Network Science (4/4)	Structured Prediction (4/4)

ONLINE COURSES

Neural Networks and Deep Learning by deeplearning.ai on Coursera [certificate](#)

Microsoft DAT203x Data Science and Machine Learning Essentials: [certificate](#)

Microsoft DAT204x Introduction to R Programming: [certificate](#)

Coursera Game Theory: [certificate](#)