

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 Dissertation: “Alleviating Catastrophic Forgetting in Continual Learning”	Aug. 2018 - Aug. 2022 GPA: 3.92/4.00
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

EXPERIENCE

Washington State University - Graduate Research Assistant • Member of Embedded & Pervasive Systems Lab (EPSL). • Technologies I used: PyTorch, Tensorflow, PyTorch Lightning, Numpy, Pandas.	Aug. 2018 - Aug. 2022
Google DeepMind - Research Scientist Intern • Supervisor: Mehrddad Farajtabar • Research focus: continual learning, meta learning, and multitask learning. • Technologies I used: Jax, Flax, Haiku, Optax, Jaxline.	Aug. 2021 - Dec. 2021
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.	Aug. 2017 - Aug. 2018
Avaanegar - Software Engineer • Product: real-time streaming service with social network features. • Technologies I used: Python, Nodejs, Redis, MongoDB, PostgreSQL, Docker.	Jan. 2016 - May 2017

FIRST-AUTHOR PUBLICATIONS

Architecture Matters in Continual Learning.
ArXiv, abs/2202.00275 (preprint), 2022.
S.I. Mirzadeh, S. Chaudhry, D. Yin, T. Nguyen, R. Pascanu, D. Gorur, M. Farajtabar

Wide Neural Networks Forget Less Catastrophically.
Thirty-ninth International Conference on Machine Learning (ICML), 2022.
S.I. Mirzadeh, S. Chaudhry, D. Yin, H. Hu, R. Pascanu, D. Gorur, M. Farajtabar

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

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

HONORS AND AWARDS

(2021) Recipient of the [NeurIPS 2021 Outstanding Reviewer Award](#) given to the top 8% of the reviewers.

(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) 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.

INVITED TALKS

[The AutoML Podcast](#), May 2022.

“Continual Learning”

[ICML'21 Workshop on Theory and Foundation of Continual Learning](#), July 2021.

“Linear Mode Connectivity in Multitask and Continual Learning”

[Continual AI Seminars](#), February 2021.

“Linear Mode Connectivity in Multitask and Continual Learning”

PROFESSIONAL ACTIVITIES

Conference Reviewer: NeurIPS'22, ICML'22, ICLR'22, AISTATS'22, AAAI'22, NeurIPS'21

Journal Reviewer: Transactions on Machine Learning Research (TMLR) (2022), Journal of Machine Learning Research (JMLR) (2022), IEEE Sensors Journal (2020), Springer Neural Processing Letters (2019)

SKILLS

Programming Languages	Python, C, C++, Bash, SQL
Databases	PostgreSQL, Redis, MongoDB, Elasticsearch
Frameworks & Libraries	Numpy, Scipy, Pandas, Pytorch, Tensorflow, Keras, Scikit-Learn, Apache Spark, Apache Hadoop, Matplotlib, Seaborn, Spacy, Jax, Jaxline, Haiku, Optax, Flax
Software Engineering Tools	Git, Docker, Kubernetes

OPEN SOURCE PROJECTS

CL-Gym: Full-featured PyTorch library for continual learning research.

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”.