IMAN MIRZADEH

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EDUCATION

Washington State University   Aug. 2018 - Aug. 2022
Doctor of Philosophy, Computer Science, EECS Department
Dissertation: "Alleviating Catastrophic Forgetting in Continual Learning"

Washington State University   Aug. 2018 - Dec. 2020
Master of Science, Computer Science, EECS Department
Thesis: "Improved Knowledge Distillation for Deep Neural Networks"

University of Tehran   Aug. 2013 - Mar. 2018
Bachelor of Science, Information Technology Engineering, ECE Department
Thesis: "Design and Implementation of a Deep Learning Based Question Answering System"

EXPERIENCE

Apple - Machine Learning Research Engineer   May. 2023 - Present
• Member of AI/ML.
• Research focus: improving efficiency of Large Language Models (LLMs).

Washington State University - Graduate Research Assistant   Aug. 2018 - Aug. 2022
• Member of Embedded & Pervasive Systems Lab (EPSL).

Google DeepMind - Research Scientist Intern   Aug. 2021 - Dec. 2021
• Hosts: Mehrdad Farajtabar
• Research focus: continual learning, meta learning, and multitask learning.

Sokhan AI - Machine Learning Engineer   Aug. 2017 - Aug. 2018
• Technical Lead. Worked on context-aware natural language understanding engine.

Avaanegar - Software Engineer   Jan. 2016 - May 2017
• Product: real-time streaming service with social network features.

SELECTED PUBLICATIONS

OpenELM: An Efficient Language Model Family with Open Training and Inference Framework.
Preprint.
S. Mehta, M. Sekhavat, Q. Cao, M. Horton, Y. Jin, C. Sun, I. Mirzadeh, M. Najibi, D. Belenko, P. Zatloukal, & M. Rastegari

LLM *in a flash*: Efficient Large Language Model Inference with Limited Memory.
The 61st Annual Meeting of the Association for Computational Linguistics (**ACL**), 2024.
K. Alizadeh, I. Mirzadeh, D. Belenko, K. Khatamifard, M. Cho, C. Del Mundo, M. Rastegari, & M. Farajtabar

ReLU Strikes Back: Exploiting Activation Sparsity in Large Language Models.
Twelfth International Conference on Learning Representations (**ICLR**), 2024.
I. Mirzadeh, K. Alizadeh, S. Mehta, C. Del Mundo, O. Tuzel, G. Samei, M. Rastegari, & M. Farajtabar
**Selected for oral presentation (top 1.2%).

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

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 (21-23), ICML (22-23), ICLR (22-23), AISTATS'22, AAAI'22

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