Noam Razin

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Research Interests

Machine Learning, Deep Learning Theory, Non-Convex Optimization, Tensor Analysis

Education

2019-present: PhD candidate (direct track), School of Computer Science, Tel Aviv University, Israel

- Advisor: Dr. Nadav Cohen
- Topic: Theoretical and algorithmic foundations of deep learning
- GPA: 100/100

2015–2018: BSc in Computer Science, The Hebrew University of Jerusalem, Israel

- Member of the Amirim honors program for outstanding undergraduate students
- Graduated summa cum laude
- GPA: 99.2/100 (rank 1 of 283 in class of 2018)

Awards and Honors

Tel Aviv University Center for AI and Data Science excellence fellowship (2021)

Summa cum laude graduate of The Hebrew University of Jerusalem BSc Computer Science (2018)

The Hebrew University of Jerusalem dean's honor list (2018)

The Hebrew University of Jerusalem rector's honor list (2016, 2017)

Professional Experience

2019–2020: Research Intern, Microsoft, Israel

Deep learning for visual and textual content-based product recommendations

2017-2019: Software Engineer, Microsoft, Israel

Distributed systems for servicing product recommendations in Microsoft stores

2013–2015: Software Engineer, Jive, Israel

Server-side development of a scalable gamification module for a work collaboration tool

Publications

* denotes equal contribution

Conference Proceedings:

Implicit Regularization in Tensor Factorization

Noam Razin*, Asaf Maman*, Nadav Cohen

International Conference on Machine Learning (ICML), 2021

Implicit Regularization in Deep Learning May Not Be Explainable by Norms

Noam Razin, Nadav Cohen

Advances in Neural Information Processing Systems (NeurIPS), 2020

RecoBERT: A Catalog Language Model for Text-Based Recommendations.

Itzik Malkiel, Oren Barkan, Noam Koenigstein, Noam Razin, Ori Katz, Avi Caciularu

Findings of the Association for Computational Linguistics: EMNLP, 2020

Scalable Attentive Sentence-Pair Modeling via Distilled Sentence Embedding

Oren Barkan*, **Noam Razin***, Itzik Malkiel, Ori Katz, Avi Caciularu, Noam Koenigstein

AAAI Conference on Artificial Intelligence (AAAI), 2020

Preprints and Technical Reports:

Implicit Regularization in Hierarchical Tensor Factorization and Deep Convolutional Neural Networks **Noam Razin**, Asaf Maman, Nadav Cohen arXiv preprint arXiv:2201.11729, 2022

Invited Talks

2021

Oberwolfach Applied Harmonic Analysis and Data Science Workshop, Germany (virtual).

RWTH Aachen Mathematics of Information Processing Seminar, Aachen, Germany (virtual).

Hebrew University of Jerusalem Machine Learning Seminar, Jerusalem, Israel

Technion Machine Learning Seminar, Haifa, Israel (virtual)

Princeton Theoretical Machine Learning Reading Group, Princeton, NJ, USA (virtual)

2020

Technion Machine Learning Seminar, Haifa, Israel (virtual)

Princeton Theoretical Machine Learning Reading Group, Princeton, NJ, USA (virtual)

Tel Aviv University Machine Learning Seminar, Tel Aviv, Israel (virtual)

Teaching Experience

Teaching Assistant, Foundations of Deep Learning, Tel Aviv University (2021–present)

Academic Service

Reviewer

Conference on Neural Information Processing Systems (NeurIPS), 2021 International Conference on Machine Learning (ICML), 2022