Noam Razin

Computer Science PhD Candidate
Tel Aviv University
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Research Interests

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

Education

2019–present **PhD in Computer Science**, *Tel Aviv University*, Israel
Topic: Theoretical and algorithmic foundations of deep learning
Advisor: Dr. Nadav Cohen

2015–2018 **BSc in Computer Science**, *The Hebrew University of Jerusalem*, Israel
Graduated summa cum laude
GPA 99.2/100 (rank 1 of 283 in class of 2018)

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

Awards and Honors

2022 Apple Scholars in AI/ML PhD fellowship

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

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

2018 The Hebrew University of Jerusalem dean's honor list

2016–2017 The Hebrew University of Jerusalem rector's honor list

2015–2018 Amirim honors program for outstanding undergraduate students

Publications

* denotes equal contribution

Conference Proceedings

1. **Implicit Regularization in Tensor Factorization**
   Noam Razin*, Asaf Maman*, Nadav Cohen
   International Conference on Machine Learning (ICML), 2021

2. **Implicit Regularization in Deep Learning May Not Be Explainable by Norms**
   Noam Razin, Nadav Cohen
   Advances in Neural Information Processing Systems (NeurIPS), 2020

3. **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

4. **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

1. **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

2022

Apple Machine Learning Seminar (virtual)

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

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

Technion Machine Learning Seminar, Haifa, Israel (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

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

Academic Service

Reviewer

Conference on Neural Information Processing Systems (NeurIPS), 2021

International Conference on Machine Learning (ICML), 2022