

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 Hierarchical Tensor Factorization and Deep Convolutional Neural Networks**
Noam Razin, Asaf Maman, Nadav Cohen
International Conference on Machine Learning (ICML), 2022
2. **Implicit Regularization in Tensor Factorization**
Noam Razin*, Asaf Maman*, Nadav Cohen
International Conference on Machine Learning (ICML), 2021
3. **Implicit Regularization in Deep Learning May Not Be Explainable by Norms**
Noam Razin, Nadav Cohen

Advances in Neural Information Processing Systems (NeurIPS), 2020

4. **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
5. **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

Invited Talks

2022

MPI MiS + UCLA Math Machine Learning Seminar, Los Angeles, CA, USA (virtual)
Ludwig Maximilian University of Munich Mathematical Foundations of Artificial Intelligence Seminar, Munich, Germany (virtual)
Princeton ALG-ML Seminar, Princeton, NJ, USA
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 ALG-ML Seminar, 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

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