

# 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

- 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

- 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

1. **Implicit Regularization in Hierarchical Tensor Factorization and Deep Convolutional Neural Networks**

**Noam Razin**, Asaf Maman, Nadav Cohen  
*arXiv preprint arXiv:2201.11729*, 2022

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## 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  
*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)

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## Teaching Experience

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

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## Academic Service

### Reviewer

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