Niv Haim

AI Researcher | Mobileye

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Ph.D, Computer Science, 2023	*M.Sc., Computer Science*, 2018	*B.Sc., Computer Science & Physics*, 2015
Weizmann Institute	Weizmann Institute	Technion
Advisor: Prof. Michal Irani	Advisor: Prof. Boaz Katz	Lapidim Excellence Program *(Cum Laude)*

Publications

Preprint	Reconstructing Training Data from Real-World Models Trained with Transfer Learning Y. Oz, G.Yehudai, G.Vardi, I. Antebi, M.Irani, N.Haim
NeurIPS 2023	Deconstructing Data Reconstruction: Multiclass, Weight Decay and General Losses G.Buzaglo*, N.Haim*, G.Yehudai, G.Vardi, Y. Oz, Y. Nikankin, M.Irani.
ICML 2023	SinFusion: Training Diffusion Models on a Single Image or Video Y.Nikankin*, N.Haim*, M.Irani.
NeurIPS 2022 [Oral]	Reconstructing Training Data from Trained Neural Networks N.Haim*, G.Vardi*, G.Yehudai*, O.Shamir, M.Irani.
ECCV 2022	Diverse Generation from a Single Video Made Possible N.Haim*, B.Finestein*, N.Granot, A.Shocher, S.Bagon, T.Dekel, M.Irani.
ICML 2020	Implicit Geometric Regularization for Learning Shapes A.Gropp, L.Yariv, N.Haim, M.Atzmon, Y.Lipman.
NeurIPS 2019	Controlling Neural Level Sets M.Atzmon, N.Haim, L.Yariv, O.Israelov, H.Maron, Y.Lipman.
ICCV 2019	Surface Networks via General Covers N.Haim*, N.Segol*, H.Ben-Hamu, H.Maron, Y.Lipman.
MNRAS 2018	Extreme Close Approaches in Hierarchical Triple Systems with Comparable Masses N.Haim, Boaz Katz.
Technical Report	From Discrete to Continuous Convolution Layers A.Shocher*, B.Finestein*, N.Haim*, M.Irani.

Experience

AI Researcher | Mobileye **2024 -**

Researching autonomous driving at the CTO Machine Learning Innovation Team.

Postdoctoral Fellow | Weizmann Institute of Science **2023 - 2024**

Research on Generative AI (e.g., large language models and diffusion models)

Freelance Lecturer **2019 - 2024**

Taught courses on Machine Learning and Deep Learning, Generative AI, Image Processing, Python, MATLAB etc. in collaboration with education providers: DART, Y-Data, Primrose, and SagivTech.

Backend Developer | Tonara **2011 - 2014**

Developed tools for image processing and data analysis for musical applications (e.g., parsing music sheets and music notations), tools for user analytics, server-client communication and server maintenance (AWS).

Research Assistant | Hebrew University **Spring 2015**

Applied machine learning in NLP - text analysis of news articles e.g., topic modeling, sentiment analysis

Team Leader | IDF **2007 - 2010**

Managed a team of analysts and coordinated between multiple organizations.

"Mekor Haim" Award for outstanding, professional excellence.

Teaching and Academic Service

TA: Advanced Topics in CV and DL [2020-2023], Deep Learning for Computer Vision [2021-2022]

Deep Neural Networks - a Hands-On Challenge [Spring 2017].

Reviewer: CVPR (2022, 2023), NeurIPS (2023), ICCV (2023), ICML (2024).

Recorded Talks: Microsoft DS Seminar (2022) | Tutorial on Adversarial Examples (2024)

Invited Talks

05.07.23 Tel Aviv University ML/CV Seminar | Invited by Prof. Shai Avidan

22.05.23 Talk at Trigo Vision | Invited by Hadar Gorodissky

24.04.23 Talk at General Motors | Invited by Dr. Shaul Oron

16.01.23 Israel Computer Vision Day | Hosted by Prof. Shai Avidan [Recording]

20.12.22 Microsoft Data Science Bond (DSBond) [Recording]

06.12.22 Talk at Google NYC | Invited by Dr. Daniel Glasner

13.11.22 Hebrew University of Jerusalem (HUJI) | Invited by Prof. Shmuel Peleg

31.08.22 Machine Learning Seminar at Healthy.io. | Invited by Sivan Biham

27.03.22 Hebrew University of Jerusalem (HUJI) | Invited by Prof. Shmuel Peleg

06.05.21 Intro to Adversarial Examples at Weizmann DL4CV course WIS

17.12.17 Israel Physical Society Conference 2017 | Hosted by Prof. Hagai Perets