Guy Ohayon

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I am a PhD candidate in Computer Science at the Technion–Israel Institute of Technology. My research focuses on the fundamental trade-offs and limitations that govern inverse problems in imaging, and developing novel techniques to address them.

Education

Computer Science | ***Doctor of Philosophy (direct track)*** March 2021 - Present
Technion
- Researching the fundamental mathematical laws and trade-offs that govern inverse problems in imaging
- Advised by Michael Elad and Tomer Michaeli

Computer Engineering | ***Bachelor of Science*** March 2017 - March 2021
Technion GPA: 95.4
- Summa cum laude
- EMET Excellence Program

Work Experience

Verily | ***Research Scientist Intern*** May 2024 - September 2024
- Research in medical imaging

Microsoft | ***Research Scientist Intern*** June 2022 - September 2023
- Research in computer vision and language models

Amazon Web Services | ***Computer Vision Research Intern*** August 2021 - November 2021
- Research in text image recognition via self-supervised learning

Google | ***Software Engineering Intern*** May 2020 - April 2021
- Designed a scalable TCP packet loss estimation algorithm based on packet sampling

Intel | ***Student Machine Learning Engineer*** August 2018 - June 2019
- Utilized reinforcement learning techniques to compile neural networks on dedicated hardware

Maisha Consulting | ***Remote-sensing Systems Integrator*** September 2016 - March 2017
- Integrated cost-effective remote sensing systems that helped identify environmental criminals (e.g., poachers) in Africa

Teaching Experience

Technion | ***Teaching Assistant, Machine Learning - 046195*** October 2021 - March 2022

Technion | ***Teaching Assistant, Introduction to Artificial Intelligence - 236501*** March 2021 - July 2021

Publications

[1] **Guy Ohayon**, Michael Elad, Tomer Michaeli "Perceptual Fairness in Image Restoration", arXiv, 2024 (pre-print, under review).
[2] **Guy Ohayon**, Tomer Michaeli, Michael Elad, "The Perception-Robustness Tradeoff in Deterministic Image Restoration", ICML 2024 (Spotlight, top 3.5%).
[3] **Guy Ohayon**, Theo Adrai, Michael Elad, Tomer Michaeli, "Reasons for the Superiority of Stochastic Estimators over Deterministic Ones: Robustness, Consistency and Perceptual Quality", ICML 2023.
[4] Theo Adrai, **Guy Ohayon**, Michael Elad, Tomer Michaeli, "Deep Optimal Transport: A Practical Algorithm for Photo-realistic Image Restoration", NeurIPS 2023.
[5] Sean Man, **Guy Ohayon**, Theo Adrai, Michael Elad, "High-Perceptual Quality JPEG Decoding via Posterior Sampling", CVPR 2023, NTIRE Workshop.
[6] **Guy Ohayon**, Theo Adrai, Gregory Vaksman, Michael Elad, Peyman Milanfar, "High Perceptual Quality Image Denoising with a Posterior Sampling CGAN", ICCV 2021, AIM Workshop (Best Student Paper Award).

Service in the Israel Defense Forces (IDF)

The Technology Unit of the Intelligence Corps (Unit 81) | ***Soldier*** August 2013 - August 2016

Honors and Awards

- Technion Artificial Intelligence Hub (Tech AI) Student Research Prize for Cross-PI Collaboration in Data Science in Funding of PBC (VATAT) for 2023 - 2024
- Commendation (4th place) at the Research Day for Graduate Students, Faculty of Computer Science, Technion (2024)
- Winner (1st place) at the Research Day for Graduate Students, Faculty of Computer Science, Technion (2021)
- Best Student Paper Award, Advances in Image Manipulation (AIM) Workshop, ICCV (2021)
- Amdocs Best Project Contest Award for Undergraduate Students, Faculty of Computer Science, Technion (2021)
- EMET Excellence Program, Faculty of Electrical and Computer Engineering, Technion (2017-2021)
- President's List Award for Excellence ($\times 6$), Technion (2017-2021)
- Dean's List Award for Excellence ($\times 2$), Faculty of Electrical and Computer Engineering, Technion (2017-2021)
- Head of Military Intelligence Directorate Prize for Creative Thinking (2016)