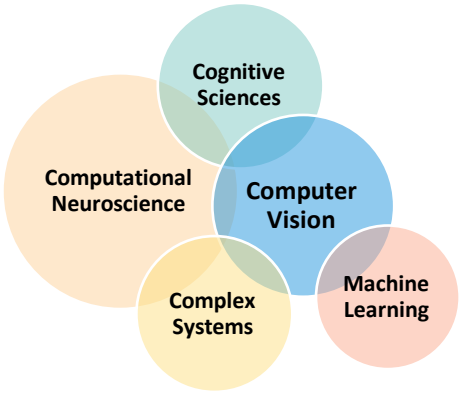


GUY GAZIV

MIT NeuroAI Researcher, PhD

ggaziv@gmail.com
guyga@mit.edu

webpage
ggaziv.github.io

AI researcher with strong academic and industry experience. With formal training in computer science (ML), physics, and engineering, and a diverse background in neuroscience and biology, I bring a multidisciplinary approach to research at the intersection of AI and computational neuroscience. My work centers on the interface between machine and human vision.

EDUCATION:

2016-2021 **Ph.D. Mathematics and Computer Science | Weizmann Institute of Science**
Thesis title: *Decoding Visual Experience from Brain Activity*
(Deep Learning | Computer Vision | Neuroscience)
Advisor: Prof. Michal Irani

2013-2016 **M.Sc. Physics | Weizmann Institute of Science**
Thesis title: *Motion Motifs: Dyadic Modes of Body Movement in Scientific Conversations*
Advisor: Prof. Uri Alon

2008-2012 **B.Sc. Electrical and Computer Engineering | Hebrew University of Jerusalem**
Major: Electronic and Photonic device
magna cum laude

PROFESSIONAL APPOINTMENTS:

2025-present **Research Scientist | Meta Reality Labs**
Build AI models for sEMG-based Neural Interfaces

2022-present **Postdoctoral Researcher, AI & Computational Neuroscience | MIT**
Neural and behavioral modulation via natural vision perturbations @ Prof. James DiCarlo

2025-present **Visiting Scholar | National Institute for Theory and Mathematics in Biology**

2021-2022 **Postdoctoral Fellow, Computer Science | Weizmann Institute of Science**
Brain decoding: extensions to 3D structure recovery and video @ Prof. Michal Irani

2018-2022 **AI Researcher & Consultant | Intelligence Corps (3060/ 8200)**
Prototyping computer vision systems using Deep Learning

2016-2018 **Algorithm Developer | FST Biometrics**
R&D of gait-based vision recognition systems using Deep Learning

2012-2013 **Software Engineer | Mellanox Technologies**
Developed a management product for Ethernet and Infiniband networks, used for purposes of HPC, academic research and finance

2010-2012 **Hardware Engineer | Intel**
Design and implement data center network controllers

2005-2008 **Team Lead, Israel Defense Force | Intelligence Corps (8200)**
- Head of wireless operation training program (officer role)
- Team lead and mentor of 10 commanders and 80 trainees. Hundreds of alumni
- Design and teach coursework on Arabic, intelligence professions, and education

TEACHING & MENTORING

Aug 2025	Advisor and TA in the *Brains Minds & Machines Summer Course*, MA, USA
Aug 2023	Created and taught coursework on *Deep Generative Models* (VAEs, GANs, Diffusion Models, Flow Matching)
2019-2021	**Teaching Assistant, Weizmann Institute of Science** Course: *Introduction to Computer Vision*
2010-2011, 2013-2016	**Academic Tutor, Hebrew University of Jerusalem** Courses: *Classical Mechanics, Electricity & Magnetism, Calculus*

HONORS AND AWARDS

2008-2010	Dean's list, Faculty of Science, Hebrew University of Jerusalem
2008	Faculty Prize, Hebrew University of Jerusalem
2005	Wireless operations excellent trainee award, Intelligence Corps

GRANTS AND FELLOWSHIPS

2021	2021 Fulbright Postdoctoral Fellowship (declined)
2021-2022	Weizmann Institute of Science Postdoctoral Fellowship
2018	Prime Minister's office international summer school fellowship. The fellowship funds participation in 15th IAPR/Eurasip International Summer School for Advanced Studies on Biometrics for Secure Authentication.
2016-2021	Weizmann Institute of Science PhD Fellowship
2015	European Physical Society Travel Grant
2013-2016	Weizmann Institute of Science MSc Fellowship

PUBLICATIONS

Published Peer-Reviewed Papers: ***equal contribution**

[1] Talbot, M., Kreiman, G., DiCarlo, J. & **Gaziv, G.** (2025). L-WISE: Boosting human visual category learning through model-based image selection and enhancement. *In International Conference on Learning Representations (ICLR)*

[2] **Gaziv, G.***, Lee, M.*, & DiCarlo, J. (2023). Strong and Precise Modulation of Human Percepts via Robustified ANNs. *In Advances in Neural Information Processing Systems (NeurIPS)*

[3] **Gaziv, G**.*, Beliy, R.*, Granot, N.*, Hoogi, A., Strappini, F., Golan, T., & Irani, M. (2022). Self-Supervised Natural Image Reconstruction and Large-Scale Semantic Classification From Brain Activity. *NeuroImage*

[4] Beliy, R.*, **Gaziv, G**.*, Hoogi, A., Strappini, F., Golan, T., & Irani, M. (2019). From Voxels to Pixels and Back: Self-Supervision in Natural-Image Reconstruction From fMRI. *In Advances in Neural Information Processing Systems (NeurIPS)*

[5] Grossman, S.*, **Gaziv, G.***, Yeagle, E. M., Harel, M., Mégevand, P., Groppe, D. M., Khuvis, S., Herrero, J. L., Irani, M., Mehta, A. D., Malach R. (2019). Convergent Evolution of Face Spaces Across Human Face-Selective Neuronal Groups and Deep Convolutional Networks. *Nature Communications*

[6] **Gaziv, G.**, Noy, L., Liron, Y., & Alon, U. (2017). A Reduced-Dimensionality Approach to Uncovering Dyadic Modes of Body Motion in Conversations. *PLOS One*

Preprints:

[7] **Gaziv, G.**, Goulding, S., A-Hancock, A., Bai, Y. & DiCarlo, J. (2025). Noninvasive precision modulation of high-level population activity via natural vision perturbations. *arXiv.*

[8] Kupershmidt, G., Beliy, R., **Gaziv, G**., & Irani, M. (2022). A Penny for Your (visual) Thoughts: Self-Supervised Reconstruction of Natural Movies from Brain Activity. *arXiv*

[9] **Gaziv, G**. & Irani, M. (2021). More Than Meets the Eye: Self-Supervised Depth Reconstruction From Brain Activity. *arXiv*

INVITED TALKS

July 2025	**Towards Noninvasive, Beneficial Modulation of Neural Population Activity via Natural Vision Perturbations** Neural Interfaces, *Meta Reality Labs*
Apr 2025	Data & Decision Sciences, *Technion*
Feb 2025	**Robustified ANNs Reveal Wormholes Between Human Category Percepts** CogLunch, Brain and Cognitive Sciences, *MIT*
Feb 2025	**Towards Noninvasive, Beneficial Modulation of Neural Population Activity via Natural Vision Perturbations** NeuroLunch, Brain and Cognitive Sciences, *MIT*
May 2024	**Robustified ANNs Reveal Wormholes Between Human Category Percepts** Data & Decision Sciences, *Technion*
Feb 2024	**Strong and Precise Modulation of Human Percepts via Robustified ANNs** Vision & AI seminar, *Weizmann Institute*
Feb 2024	**Robustified ANNs Reveal Wormholes Between Human Category Percepts** Pixel Club, *Technion*
Feb 2024	Vision Seminar, *Tel-Aviv U.*
Feb 2024	Vision Seminar, *The Hebrew U.*
Feb 2024	Creative Camera, *Google*
Feb 2024	Computer Science Colloquium, *Reichman U.*
Feb 2024	Gonda Brain Research Center, *Bar Ilan U.*
Dec 2023	**Developing and validating models of the ventral visual stream via neural and behavioral modulation.** *Simons Collaboration on the Global Brain*
Sep 2023	**Robustified ANNs Reveal Wormholes Between Human Category Percepts** Carney Institute for Brain Science, *Brown U.*
Jul 2023	**Deploying Model of Vision: From Mind Reading to Behavior Modulation** 🎥 Recording VisCAM, *Google* **Mind Reading: Decoding Visual Experience from Brain Activity**
Apr 2022	Brain & AI, *Meta*
Mar 2022	Rafael Computer Vision, *Leshem Institute*
Feb 2022	Sagol Neurobiology Dept, *Haifa U.*
Dec 2021	AAAI Seminar, *8200* 🎥 Recording

Nov 2021 Computer Science Colloquium, *Tel-Aviv U.*
Nov 2021 Computer Science Colloquium, *Reichman U.*
Nov 2021 Computer Science Colloquium, *Ben Gurion U.*
Oct 2021 Gonda Brain Research Center, Bar Ilan *U.* 🎥 Recording
Oct 2021 **Self-Supervised Natural Image Reconstruction and Rich Semantic Classification From Brain Activity**
Israeli Conference on Medical Informatics (ICMI)
Jan 2021 GIDRM 2020 workshop on Artificial Intelligence in NMR/MRI and Neuroscience
Jan 2020 **Self-Supervision in Natural-Image Reconstruction From fMRI** 🎥 Recording
Israel Computer Vision Day 2019, *Tel-Aviv U.*
Jan 2020 Pixel Club, *Technion*
Oct 2019 Vision Seminar, *The Hebrew U.*

POSTER PRESENTATIONS

Dec 2023 **Strong and Precise Modulation of Human Percepts via Robustified ANNs**, *NeurIPS*
Jan 2021 **Self-Supervised Natural Image Reconstruction and Rich Semantic Classification from Brain Activity**, *SfN Global Connectome*
Oct 2020 *IMVC (Israel Machine Vision Conference)*
Aug 2020 Brain Minds & Machines Summer Course, *MIT*
Dec 2019 **Self-supervision in Natural-Image Reconstruction from fMRI**, *NeurIPS*
Nov 2019 AI Week, *Tel Aviv U.*
Jul 2019 The Algonauts Workshop, *MIT*
Mar 2018 **In Motion Identification Based on Gait**, *IMVC*
Jun 2015 **Nonverbal communication in scientific conversations**, *Granada Seminar on Computational and Statistical Physics*

OTHER PROFESSIONAL ACTIVITIES

Aug 2020 Participated in the Brains Minds & Machines (BMM) Summer Course, *MIT* (virtual)
Jul 2019 Participated in the Algonauts 2019 Challenge and workshop, *MIT*
- Ranked 3 and 4 in fMRI and MEG challenge tracks
- Presented a poster on image reconstruction from fMRI at the workshop

Jun 2018 Participated in the 15th international Summer School for Advanced Studies on "Assuring Trustworthiness of Biometrics", Alegro, Italy

Reviewer: *PNAS, NeurIPS, ICLR, Cosyne, NeuroImage, IEEE TCDS, Applied Sciences*
Affiliations: Center for Brains, Minds and Machines (CBMM), starting May 2023

PROGRAMMING/CAD EXPERIENCE

Python, MATLAB, PyTorch, TF, Keras, Java, Specman (e), bash, c#, .Net, Unity3D, Solidworks

HOBBIES AND INTERESTS

- Woodworking, Gardening
- Yoga teaching (certified instructor)
- Playing the piano, guitar & didgeridoo
- Designing and flying radio-controlled airplane, helicopter & quadcopter models

LANGUAGES

Hebrew ★★★★★
English ★★★★★
Arabic ★★★★★