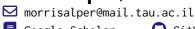
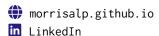
# Morris Alper, M.Sc.



■ Google Scholar GitHub





I research multimodal learning, combining vision with modalities such as language and threedimensional data for complex tasks requiring high-level semantic understanding.

# **Education**

2023 – ongoing	<b>Ph.D., Tel Aviv University</b> Electrical Engineering (Machine Learning) Advisor: <i>Dr. Hadar Averbuch-Elor</i>
2019 - 2023	M.Sc. (cum laude), Tel Aviv University Computer Science Advisor: Dr. Hadar Averbuch-Elor Thesis: Learning Human-Human Interactions in Images with Weak Textual Supervision GPA: 98 / 100
2012 – 2016	<b>B.Sc., Massachusetts Institute of Technology (MIT)</b> Linguistics and Mathematics (dual major).  GPA: 4.9 / 5

# **Employment History**

2024	Research Scientist Intern, Meta. Developing 3D generative models.
2019 – 2023	Data Science Lead and Lecturer, Israel Tech Challenge. Designed syllabus, wrote, and delivered lectures on data science to industry professionals.
2019 – 2021	<b>NLP Data Scientist,</b> Pipl, Inc. Designed information extraction algorithms for unstructured textual web data.
2018 – 2019	<b>NLP Data Scientist,</b> Reverso-Softissimo.  Designed NLP algorithms to automatically correct and enrich linguistic data.
2017 – 2018	<b>Software Developer,</b> K Dictionaries. Managed API for lexicographic data, and developed algorithms for data enrichment
2015 – 2016	<b>Software and Algorithm Developer,</b> Voiceitt.  Prototyped speech recognition algorithms and integrated them into the company's API.
2016	<b>Algorithm Development Intern,</b> SECOM. Developed algorithms for improved facial recognition.
2012-2015	<b>Undergraduate Research in Cognitive Linguistics,</b> TedLab, MIT.  Analyzed psycholinguistic survey data to study cognition and language.

# **Research Publications**

## **Peer-Reviewed Conference Papers**

- 1. Rachel Mikulinsky\*, Morris Alper\*, Shai Gordin, Enrique Jiménez, Yoram Cohen, Hadar Averbuch-Elor. ProtoSnap: Prototype Alignment For Cuneiform Signs. *ICLR*, 2025.
- 2. Keren Ganon\*, Morris Alper\*, Rachel Mikulinskyı, Hadar Averbuch-Elor. WAFFLE: Multimodal Floorplan Understanding in the Wild. WACV, 2025.
- 3. Morris Alper and Hadar Averbuch-Elor. Emergent Visual-Semantic Hierarchies in Image-Text Representations. Proceedings of the European Conference on Computer Vision (ECCV), 2024. (Oral)

<sup>\*</sup> indicates equal contribution.

- 4. Moran Yanuka, **Morris Alper**, Hadar Averbuch-Elor, Raja Giryes. ICC : Quantifying Image Caption Concreteness for Multimodal Dataset Curation. *ACL (Findings)*, 2024.
- 5. Chen Dudai\*, **Morris Alper**\*, Hana Bezalel, Rana Hanocka, Itai Lang, and Hadar Averbuch-Elor. HaLo-NeRF: Learning Geometry-Guided Semantics for Exploring Unconstrained Photo Collections. *Proceedings of the Eurographics Conference (EG)*, 2024.
- 6. **Morris Alper** and Hadar Averbuch-Elor. Kiki or Bouba? Sound Symbolism in Vision-and-Language Models. *Advances in Neural Information Processing Systems (NeurIPS)*, 2023. (*Spotlight*)
- 7. **Morris Alper** and Hadar Averbuch-Elor. Learning Human-Human Interactions in Images from Weak Textual Supervision. *Proceedings of the IEEE/CVF International Conference on Computer Vision (ICCV)*, 2023.
- 8. **Morris Alper\***, Michael Fiman\*, and Hadar Averbuch-Elor. Is BERT Blind? Exploring the Effect of Vision-and-Language Pretraining on Visual Language Understanding. *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, 2023.

# **Miscellaneous Experience**

#### Presentations and Interviews

2024 IMVC 2024 presentation on "Kiki or Bouba?" NeurIPS 2023 paper

Radio interview for Kan Tarbut program on VLM sound symbolism research (46:30-60:00, Hebrew language)

### **Awards and Achievements**

- International Linguistics Olympiad, first place internationally (both individual and team rounds), best solution (problem 2), Zhurinsky Memorial Prize.
- 2009 **International Linguistics Olympiad**, honorable mention (individual round), first place in team round.
- 2008 International Linguistics Olympiad, tied for 6th place individual round (silver medal).

### **Academic Teaching Experience**

Fall 2023 **Digital Signal Processing**, teaching assistant, Tel Aviv University.

### **Peer Review Service**

2024 COLM, NeurIPS, ACML, ICLR

### Languages

English (native), Hebrew (professional), French (intermediate)

### References

Available upon request