

Morris Alper, M.Sc.

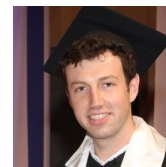
✉ morrisalper@mail.tau.ac.il

📄 Google Scholar

🐙 GitHub

🌐 morrisalp.github.io

🌐 LinkedIn



I am interested in multimodal learning, particularly using linguistic knowledge combined with vision and other structured modalities for complex tasks that require high-level semantic understanding.

Education

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

Employment History

2024	Research Scientist Intern, Meta. Developing text-to-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	NLP Data Scientist, Pipl, Inc. Designed information extraction algorithms for unstructured textual web data.
2018 – 2019	NLP Data Scientist, Reverso-Softissimo. Designed NLP algorithms to automatically correct and enrich linguistic data.
2017 – 2018	Software Developer, K Dictionaries. Managed API for lexicographic data, and developed algorithms for data enrichment
2015 – 2016	Software and Algorithm Developer, Voiceitt. Prototyped speech recognition algorithms and integrated them into the company's API.
2016	Algorithm Development Intern, SECOM. Developed algorithms for improved facial recognition.
2012-2015	Undergraduate Research in Cognitive Linguistics, TedLab, MIT. Analyzed psycholinguistic survey data to study cognition and language.

Research Publications

* indicates equal contribution.



Peer-Reviewed Conference Papers

1. **Morris Alper** and Hadar Averbuch-Elor. Emergent Visual-Semantic Hierarchies in Image-Text Representations. *Proceedings of the European Conference on Computer Vision (ECCV)*, 2024.
2. Moran Yanuka, **Morris Alper**, Hadar Averbuch-Elor, Raja Giryes. ICC : Quantifying Image Caption Concreteness for Multimodal Dataset Curation. *ACL (Findings)*, 2024.
3. 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.

4. **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)
5. **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.
6. **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

- 2011 **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

Languages

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

References

Available upon request