

Yoav Gur-Arieh

MS Student and software engineer with 9 years of experience, researching interpretability in LLMs

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Education

Tel-Aviv University

Oct 2024 to Jun 2025

MS in Computer Science

- NLP lab, researching interpretability in LLMs under advisor Mor Geva.
- Done as part of the direct-to-masters interdisciplinary program.
- Average: 95.85

Tel-Aviv University

Oct 2022 to Jun 2026

Interdisciplinary Studies

- Studying in the Adi Lautman Interdisciplinary Program for Outstanding Students.
- Took courses in computer science, biology, neuroscience, physics and history.
- Average: 93.71

Experience

Graduate Researcher (*Advisor: Mor Geva*)

Sep 2024 to present

Tel-Aviv University

- Working on research in **interpretability and control** in LLMs
- Published research on improvements to large-scale automated **feature interpretability pipelines**, generating output-centric feature descriptions to improve understanding of features.
- Researching novel scalable **knowledge adaptation** and injection techniques for LLMs.
- Working on building large-scale data pipelines for precise **knowledge attribution for pre-training**.

Senior Software Engineer

Mar 2021 to present

Laminar Security / Rubrik

- Joined the startup at its inception, spearheading the development of front-end, back-end, and agent-based systems from scratch, including a document sensitivity classification engine.
- Led technical research and implemented solutions for extracting decrypted data from encrypted cloud traffic.

Senior Developer & Researcher

Mar 2016 to Mar 2021

Military Intelligence (8200)

- Carried out months-long solo research projects into esoteric and opaque technologies that have little or no publicly available documentation, culminating in the development of technical solutions.
- Led through to completion highly complex, high-risk projects involving multiple teams.
- Worked on smaller sporadic projects entailing deep dives into complex topics.

Software Developer

Aug 2015 to Mar 2016

Checkpoint Software Technologies

- Contributed to the development of a log aggregator and analyzer product tailored for large enterprises. Designed and implemented automated reports featuring visualization of insights.

Publications

Enhancing Automated Interpretability with Output-Centric Feature Descriptions

Jan 2025

Yoav Gur-Arieh, Roy Mayan, Chen Agassy, Atticus Geiger, Mor Geva

To be submitted to ACL - arxiv.org/abs/2501.08319

Projects

SAE Knowledge Erasure Project

[Code](#) 

- Leveraged output-centric feature descriptions to identify MLP SAE features associated with specific concepts in the Gemma-2 2B model. Ablated these features to effectively erase the corresponding concepts, demonstrating targeted knowledge manipulation - explained in detail [here](#).

Avian Neuronal Response Project

[Code](#) 

- Analyzed avian neuronal activity in response to varied bird calls (authentic and artificial), and used classical machine learning techniques to classify stimuli.

Parkalot - Parking Finder App

[Link](#) 

- Developed an app that displays parking lots with free spots around the user.
- Created the scraper (python), backend (python), database (SQL) and app (JS).

Hoppa - Platform Jumper Android Game

[Link](#) 

- Developed an android platform jumper game using Unity in C#, from conception to deployment.

Honors, Awards & Scholarships

Honors & Awards

- Personal award from the Military Intelligence Directorate for excellence (including a rank promotion)
- Award for outstanding project (8200)
- Israel Defense Award awarded to two group-projects
- First place team in the 2015 'Skillz' coding competition

Scholarships

- Full tuition funded by the Adi Lautman Interdisciplinary Program for Outstanding Students at TAU

Technologies

Languages: Python, C, Golang, C#, Java, JavaScript

Technologies: PyTorch, HF Transformers, TransformerLens, SAELens, eBPF, Linux Internals, Cybersecurity

Language Proficiency

English, Hebrew: Native