

CONTACT INFORMATION	https://sites.google.com/view/eyal-weiss	eweiss@campus.technion.ac.il
RESEARCH INTERESTS	Artificial intelligence, automated planning, heuristic search, robotics, control theory	
RESEARCH POSITIONS	<p>Technion - Israel Institute of Technology, Haifa, Israel</p> <p>Postdoctoral Scholar, Computer Science, October 2024–current</p> <ul style="list-style-type: none"> • Topics: Search, Planning, Motion Planning, Robotics • Host: Prof. Oren Salzman 	
EDUCATION	<p>Bar-Ilan University, Ramat Gan, Israel</p> <p>Ph.D., Computer Science, Dissertation submitted</p> <ul style="list-style-type: none"> • Thesis Topic: <i>Graph Search and Automated Planning with Multiple Cost Estimators</i> • Advisor: Prof. Gal A. Kaminka <p>Tel Aviv University, Tel Aviv, Israel</p> <p>M.Sc., Electrical Engineering, March 2018</p> <ul style="list-style-type: none"> • Topic: <i>Minimal Controllability and Minimal Observability of Conjunctive Boolean Networks</i> • Advisor: Prof. Michael Margaliot • <i>Cum Laude</i> <p>B.Sc., Electrical Engineering, October 2016</p> <ul style="list-style-type: none"> • <i>Summa Cum Laude</i> 	
ADDITIONAL RESEARCH EXPERIENCE	Research Assistant Department of Electrical Engineering, Tel Aviv University Supervisor: Prof. Michael Margaliot	April 2018 to September 2019
HONOURS AND AWARDS	<ul style="list-style-type: none"> • SoCS 2025 Best Paper Award • “Adams Fellowship” scholarship for outstanding doctoral students in the Natural and Exact Sciences 2022–2024 • Excellence scholarship for research students, Computer Science Department 2023 • “Milgat Hanasi” scholarship for excellent Ph.D. students 2021–2023 • “Shlomo Shmeltzer Institute for Smart Transportation Scholarship” 2017 • Excellent student prize for M.Sc. students, Faculty of Engineering 2017 • “Velger Prize” of excellence for graduate studies in Systems and Control 2017 • “Final Prize” for excellent students in Electrical Engineering 2015 • “Freescale Scholarship” for excellent students in Electrical Engineering 2014 • Dean’s Honors (every year of the B.Sc.) 2012–2016 	
HARDWARE AND SOFTWARE SKILLS	<p>Computer Programming:</p> <ul style="list-style-type: none"> • C, C++, Java, Python, MATLAB, Bash scripting <p>Laboratory Experience:</p> <ul style="list-style-type: none"> • Robotic systems • Electronics and low-level controllers 	

SERVICE

Reviewer

- *International Conference on Automated Planning and Scheduling (ICAPS)*
- *Annual AAAI Conference on Artificial Intelligence (AAAI)*
- *International Joint Conference on Artificial Intelligence (IJCAI)*
- *Robotics: Science and Systems (RSS)*
- *Automatica*
- *IEEE Transactions on Automatic Control*
- *European Journal of Control*
- *IEEE Transactions on Network Science and Engineering*
- *Optimization and Engineering*

Organizing Committee

- *ICAPS Workshop on Heuristics and Search for Domain-independent Planning (HSDIP)*, 2025
- *ICAPS Workshop on Reliable Data-Driven Planning and Scheduling (RDDPS)*, 2024
- *ICAPS Workshop on Reliable Data-Driven Planning and Scheduling (RDDPS)*, 2023

Session chair

- *European Conference on Artificial Intelligence (ECAI)*, 2023
- *IEEE Conference on Decision and Control (CDC)*, 2018

JOURNAL
PUBLICATIONS

1. **E. Weiss** and M. Margaliot, “A Generalization of Linear Positive Systems with Applications to Nonlinear Systems: Invariant Sets and the Poincare-Bendixon Property”, *Automatica*, 123, 109358, 2021.
2. **E. Weiss** and M. Margaliot, “Is My System of ODEs k-Cooperative?”, *IEEE Control Systems Letters*, 5:73–78, 2020.
3. **E. Weiss** and M. Margaliot, “A Polynomial-Time Algorithm for Solving the Minimal Observability Problem in Conjunctive Boolean Networks”, *IEEE Transactions on Automatic Control*, 64(7):2727–2736, 2018.
4. **E. Weiss** and M. Margaliot, “Output Selection and Observer Design for Boolean Control Networks: A Sub-Optimal Polynomial-Complexity Algorithm”, *IEEE Control Systems Letters*, 3:210–215, 2018.
5. **E. Weiss** and M. Margaliot and G. Even, “Minimal Controllability of Conjunctive Boolean Networks is NP-Complete”, *Automatica*, 92:56–62, 2018.

CONFERENCE
PUBLICATIONS

1. Y. Wang and **E. Weiss** and B. Mu and O. Salzman, “Bidirectional Search while Ensuring Meet-In-The-Middle via Effective and Efficient-to-Compute Termination Conditions”, *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, 8987–8995, 2025.
2. Y. Sherma and **E. Weiss** and O. Salzman, “From Agent Centric to Obstacle Centric Planning: A Makespan-Optimal Algorithm for the Multi-Agent Warehouse Rearrangement Problem”, *Proceedings of the International Symposium on Combinatorial Search (SoCS)*, 136–144, 2025.
3. D. Gnad and L. Alon and **E. Weiss** and A. Shleyfman, “PDBs Go Numeric: Pattern-Database Heuristics for Simple Numeric Planning”, *Proceedings of the AAAI Conference on Artificial Intelligence*, 26507–26515, 2025.
4. **E. Weiss** and A. Felner and G. A. Kaminka, “Tightest Admissible Shortest Path”, *Proceedings of the International Conference on Automated Planning and Scheduling (ICAPS)*, 643–652, 2024.

5. **E. Weiss** and A. Felner and G. A. Kaminka, “A Generalization of the Shortest Path Problem to Graphs with Multiple Edge-Cost Estimates”, *Proceedings of the European Conference on Artificial Intelligence (ECAI)*, 2607–2614, 2023.
6. **E. Weiss** and G. A. Kaminka, “Planning with Multiple Action-Cost Estimates”, *Proceedings of the International Conference on Automated Planning and Scheduling (ICAPS)*, 427–437, 2023.
7. **E. Weiss** and M. Margaliot, “A Generalization of Linear Positive Systems”, *2019 27th Mediterranean Conference on Control and Automation (MED)*, 340–345, 2019.
8. **E. Weiss** and M. Margaliot, “A Generalization of Smillie’s Theorem on Strongly Cooperative Tridiagonal Systems”, *2018 IEEE Conference on Decision and Control (CDC)*, 3080–3085, 2018.
9. **E. Weiss** and M. Margaliot, “Observability Analysis and Observer Design for Boolean Control Networks: A Sub-Optimal Polynomial-Complexity Algorithm”, *IEEE International Conference on the Science of Electrical Engineering*, 2018.

WORKSHOP
PUBLICATIONS

1. D. Gnad and L. Alon and **E. Weiss** and A. Shleyfman, “PDBs Go Numeric: Pattern-Database Heuristics for Simple Numeric Planning”, *ICAPS’24 Workshop on Heuristics and Search for Domain-Independent Planning (HSDIP)*, 2024.
2. **E. Weiss** and A. Felner and G. A. Kaminka, “A Generalization of the Shortest Path Problem to Graphs with Multiple Edge-Cost Estimates”, *ICAPS’23 Workshop on Reliable Data-Driven Planning and Scheduling (RDDPS)*, 2023.
3. **E. Weiss** and G. A. Kaminka, “Planning with Dynamically Estimated Action Costs”, *ICAPS’22 Workshop on Reliable Data-Driven Planning and Scheduling (RDDPS)*, 2022.
4. **E. Weiss** and G. A. Kaminka, “Position Paper: Online Modeling for Offline Planning”, *ICAPS’22 Workshop on Reliable Data-Driven Planning and Scheduling (RDDPS)*, 2022.

TEACHING
EXPERIENCE AND
STUDENT
SUPERVISION

Positions at the Faculty of Computer Science, Technion – Israel Institute of Technology:
 Student Supervisor 2025
 Supervision of graduation projects of Computer Science students, in the field of heuristic search

Positions at the Department of Computer Science, Bar-Ilan University:
 Student Supervisor October 2022 to March 2024
 Supervision of students conducting research projects at “Alpha” – a research program for gifted high-school students in Israel, associated with the Future Scientists Center
 Teaching Assistant Fall and spring semesters 2024 (current)
 Artificial Intelligence
 Teaching Assistant Spring semester 2023
 Statistical Methods in Computer Science
 Teaching Assistant Spring semesters 2021–2022
 Introduction to Intelligent, Smart and Cognitive Systems
 Teaching Assistant Spring semester 2021
 Object Oriented Programming
 Teaching Assistant Fall semesters 2020–2022
 Computer Structure

Positions at Tel Aviv University:

Teaching Assistant Fall semester 2019–2020
 Stochastic Processes
 Graduate School of Electrical Engineering

Teaching Assistant Spring semesters 2017–2020
 Signals and Systems
 Electrical Engineering International Program

Teaching Assistant Fall semesters 2017–2020
 Random Signals and Noise
 Electrical Engineering International Program

Laboratory Instructor Fall semesters 2016–2020
 Laboratory of Advanced Control
 Department of Electrical Engineering

Student Supervisor October 2018 to September 2019
 Supervision of graduation projects of Electrical Engineering students, in the field of
 autonomous driving, using mini-scale cars
 Department of Electrical Engineering

Teaching Assistant Fall semester 2016–2017
 Optimal Control
 Graduate School of Electrical Engineering

PROFESSIONAL EXPERIENCE Positions at Mellanox (today part of Nvidia)

- Network architecture intern 2015
- Chip design intern 2013–2014

SOCIAL ACTIVITIES

- Tutor at the economic empowerment program of “Misdar Dorshei Tov” 2018–2022
- Technical editor at project “Good to Know” of Tel Aviv University 2017
- Personal mentor at the Children’s Home “Shimony”, at “HaKfar HaYarok”, within the framework of “Youth at risk” 2012–2014
- Guidance and management roles at the Scouts movement 2004–2006

LANGUAGES

- Hebrew – native
- English – full professional proficiency