

Michael Katz

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Executive Summary

Principal research scientist and a recognized leader in AI planning with large language models (LLMs). 20 years of contributions spanning foundational planning theory, heuristic search, neuro-symbolic systems, and enterprise-scale AI solutions. Shapes both research and community direction in the emerging field of planning with language models. Holds key leadership roles in the AI community, including board memberships on the AAAI and ICAPS Executive Councils and major conference program leadership. Brings a unique blend of deep technical expertise and strategic vision to advance AI-driven autonomy and explainability.

Research Interests

- Intelligent agents and autonomous decision making
- Reliable and efficient planning with large language models
- Planning and reinforcement learning – neuro-symbolic approaches for applied reasoning

Education

Ph.D., Industrial Engineering and Management, Technion, 2010

B.A., Mathematics and Computer Science, Technion, 2002

Selected Awards and Honors

- ICAPS Influential Paper (test-of-time) Award (2023) for the 2008 paper Optimal Additive Composition of Abstraction-based Admissible Heuristics
- ICAPS Best Dissertation Award (2011)
- Multiple awards and medals in the Independent Set Reconfiguration Core Challenge (2022-2023)
- Best Demo Awards at ICAPS and IJCAI (multiple years)
- Winner, Deterministic Sequential Optimal Track, IPC 2018 (*Delfi*)
- Runner-up, Deterministic Sequential Satisficing Track, IPC 2014 (*Mercury*)

Professional Service and Leadership

- Executive Council Member, ICAPS (2021-2027)
- Executive Council Member, AAAI (2026-2029)
- Program Co-Chair, ICAPS 2021
- Tutorial presenter: NeurIPS 2025; IJCAI 2021; AAAI 2022; ICAPS 2024
- Co-founder, Workshop series on Planning in the Era of LLMs (LM4Plan) and Co-Chair editions AAAI 2025, ICAPS 2025
- Co-founder, Workshop series on Planning and Reinforcement Learning (PRL) and Co-Chair editions ICAPS (2020, 2022-2023), IJCAI (2022-2023)
- Area Chair: AAAI (2024-2026), ICAPS 2025
- Senior PC: AAAI, IJCAI, ICAPS

Professional Experience

IBM Research - T.J. Watson, Yorktown Heights, NY

Principal Research Scientist (2022-present); Research Staff Member (2017-2022)

- Lead research on reliable and efficient planning with and without LLMs.
- Delivered theoretical advances and applied neuro-symbolic solutions adopted across IBM.
- Inventor on 25+ patents in AI planning, decision optimization, and explainability.

Haifa University, Israel (Lecturer, 2017)

IBM Research - Haifa Lab (Research Scientist, 2013-2016, Watson Health Scientist, 2016-2017)

Saarland University (Postdoctoral Fellow, 2012-2013)

INRIA (Postdoctoral Fellow, 2011-2012)

Technion AI Research Group (Postdoc & PhD Researcher, 2007-2011)

Patents

- 25+ issued or published patents in AI planning, reasoning, scheduling, diverse plan generation, and neuro-symbolic systems.

Publications By Topics

Publications at top venues are organized by the following topical areas

- LLMs for Planning and Neuro-Symbolic Reasoning
- Multiple Solutions for Classical Planning
- Theory and Practice of Classical Planning
- Planning and Reinforcement Learning
- Applications, Data, and AI Planning based solutions

LLMs for Planning and Neuro-Symbolic Reasoning

- Position
 - **M. Katz**, H. Kokel, C. Muise, S. Sohrabi, S. Sreedharan, *Make Planning Research Rigorous Again!*, Arxiv 2025.
- Thought of Search
 - **M. Katz**, H. Kokel, K. Srinivas, S. Sohrabi, *Thought of Search: Planning with Language Models Through The Lens of Efficiency*, The Thirty-Eighth Conference on Neural Information Processing Systems (NeurIPS), 2024, Vancouver, Canada.
 - D. Cao, **M. Katz**, H. Kokel, K. Srinivas, S. Sohrabi, *Automating Thought of Search: A Journey Towards Soundness and Completeness*, NeurIPS 2024 Workshop on Open-World Agents, Vancouver, Canada.
 - E. Shlomi, G. Azran, E. Shapira, O. Nahum, R. Reichart, G. Uziel, **M. Katz**, A. Anaby Tavor, S. Keren, *Transition Function Prediction in AI Planning Using LLMs*, AAAI 2025 Workshop on Planning in the Era of LLMs (LM4Plan), Philadelphia, PA, USA.
- NL2PDDL
 - J. Oswald, K. Srinivas, H. Kokel, J. Lee, **M. Katz**, S. Sohrabi, *Large Language Models as Planning Domain Generators*, The 34th International Conference on Automated Planning and Scheduling (ICAPS), 2024, Banff, Canada.
 - T. Caglar, S. Belhaj, T. Chakraborty, **M. Katz**, S. Sreedharan, *Can LLMs Fix Issues with Reasoning Models? Towards More Likely Models for AI Planning*, The 38th AAAI Conference on Artificial Intelligence (AAAI), 2024, Vancouver, Canada.

- NL2Policy
 - T. Silver, S. Dan, K. Srinivas, J. Tenenbaum, L. Kaelbling, **M. Katz**, *Generalized Planning in PDDL Domains with Pretrained Large Language Models*, The 38th AAAI Conference on Artificial Intelligence (AAAI), 2024, Vancouver, Canada.
 - K. Stein, N. Hodel, D. Fiser, J. Hoffmann, **M. Katz**, A. Koller, *Improved Generalized Planning with LLMs through Strategy Refinement and Reflection*, ICAPS 2025 Workshop on Planning in the Era of LLMs (LM4Plan), Melbourne, Australia.
- Benchmarking
 - H. Kokel, **M. Katz**, K. Srinivas, S. Sohrabi, *ACPBench: Reasoning about Action, Change, and Planning*, The Thirty-Ninth Annual AAAI Conference on Artificial Intelligence (AAAI), 2025, Philadelphia, PA, USA.
 - H. Kokel, **M. Katz**, K. Srinivas, S. Sohrabi, *ACPBench Hard: Unrestrained Reasoning about Action, Change, and Planning*, AAAI 2025 Workshop on Planning in the Era of LLMs (LM4Plan), Philadelphia, PA, USA.
 - **M. Katz**, H. Kokel, S. Sreedharan, *Seemingly Simple Planning Problems are Computationally Challenging: The Countdown Game*, ICAPS 2025 Workshop on Planning in the Era of LLMs (LM4Plan), Melbourne, Australia.
 - S. Shirai, K. Srinivas, J. Dolby, **M. Katz**, H. Samulowitz, S. Sohrabi, *Less is More: Learning Graph Tasks with Just LLMs*, Arxiv 2025.

Multiple Solutions for Classical Planning

- Top-k/Top-quality Planning
 - **M. Katz**, J. Lee, J. Kang, S. Sohrabi, *Some Orders Are Important: Partially Preserving Orders in Top-Quality Planning*, The 17th International Symposium on Combinatorial Search (SoCS), 2024, Kananaskis, Canada.
 - **M. Katz**, J. Lee, S. Sohrabi, *Unifying and Certifying Top-Quality Planning*, The 34th International Conference on Automated Planning and Scheduling (ICAPS), 2024, Banff, Canada.
 - **M. Katz**, J. Lee, *K* Search Over Orbit Space for Top-k Planning*, The 32nd International Joint Conference on Artificial Intelligence (IJCAI), 2023, Macao, SAR.
 - J. Lee, **M. Katz**, *On K* Search for Top-K Planning*, The 16th Annual Symposium on Combinatorial Search (SoCS), 2023, Prague, Czechia.
 - **M. Katz**, J. Lee, *K* and Partial Order Reduction for Top-Quality Planning*, The 16th Annual Symposium on Combinatorial Search (SoCS), 2023, Prague, Czechia.
 - **M. Katz**, S. Sohrabi, *Who Needs These Operators Anyway: Top Quality Planning with Operator Subset Criteria*, The 32nd International Conference on Automated Planning and Scheduling (ICAPS), 2022, Virtual.
 - **M. Katz**, S. Sohrabi, O. Udrea, *Top-Quality Planning: Finding Practically Useful Sets of Best Plans*, The 34th AAAI Conference on Artificial Intelligence (AAAI), 2020, New York, NY, USA.
 - **M. Katz**, S. Sohrabi, O. Udrea, D. Winterer, *A Novel Iterative Approach to Top-k Planning*, The 28th International Conference on Automated Planning and Scheduling (ICAPS), 2018, Delft, Netherlands.
- Diverse Planning
 - J. O. de Haro, E. Karpas, M. Toussaint, **M. Katz**, *Conflict-Directed Diverse Planning for Logic-Geometric Programming*, The 32nd International Conference on Automated Planning and Scheduling (ICAPS), 2022, Virtual.
 - **M. Katz**, S. Sohrabi, O. Udrea, *Bounding Quality in Diverse Planning*, The 36th AAAI

Conference on Artificial Intelligence (AAAI), 2022.

- **M. Katz**, S. Sohrabi, *Reshaping Diverse Planning*, The 34th AAAI Conference on Artificial Intelligence (AAAI), 2020, New York, NY, USA.

Theory and Practice of Classical Planning

- Abstractions

- C. Domshlak, **M. Katz**, S. Lefler, *Landmark-Enhanced Abstraction Heuristics*, Artificial Intelligence Journal (AIJ), 2012, Volume 189, pages 48-68.
- **M. Katz**, *Implicit Abstraction Heuristics for Cost-Optimal Planning*, AI Communications Journal, 2011, Volume 24, Number 4, pages 343-345.
- **M. Katz**, C. Domshlak, *Implicit Abstraction Heuristics*, Journal of Artificial Intelligence Research (JAIR), 2010, Volume 39, pages 51-126.
- **M. Katz**, C. Domshlak, *New Islands of Tractability of Cost-Optimal Planning*, Journal of Artificial Intelligence Research (JAIR), 2008, Volume 32, pages 203-288.
- **M. Katz**, E. Keyder, *Structural Patterns Beyond Forks: Extending the Complexity Boundaries of Classical Planning*, 26th AAAI Conference on Artificial Intelligence (AAAI), 2012, Toronto, Canada.
- **M. Katz**, J. Hoffmann, M. Helmert, *How to Relax a Bisimulation?*, The International Conference on Automated Planning and Scheduling (ICAPS), 2012, Sao Paulo, Brazil.
- C. Domshlak, **M. Katz**, S. Lefler, *When Abstractions Met Landmarks*, The International Conference on Automated Planning and Scheduling (ICAPS), 2010, Toronto, Canada.
- **M. Katz**, C. Domshlak, *Structural-Pattern Databases*, The International Conference on Automated Planning and Scheduling (ICAPS), 2009, Thessaloniki, Greece.
- **M. Katz**, C. Domshlak, *Structural Patterns Heuristics via Fork Decomposition*, The International Conference on Automated Planning and Scheduling (ICAPS), 2008, Sydney, Australia.
- **M. Katz**, C. Domshlak, *Structural patterns of tractable sequentially-optimal planning*, The International Conference on Automated Planning and Scheduling (ICAPS), 2007, Providence, RI, USA.
- M. Steinmetz, J. Hoffmann, **M. Katz**, *Catching Label Subsets for Relaxed Bisimulation: An Abstraction Refinement Approach*, ICAPS Workshop on Heuristics and Search for Domain-independent Planning (HSDIP), 2013, Rome, Italy.
- R. Bahumi, C. Domshlak, **M. Katz**, *On Satisficing Planning with Admissible Heuristics*, ICAPS Workshop on Heuristics for Domain-independent Planning (HDIP), 2011, Friburg, Germany.

- Cost Partitioning

- **M. Katz**, C. Domshlak, *Optimal Admissible Composition of Abstraction Heuristics*, Artificial Intelligence Journal (AIJ), 2010, Volume 174, pages 767-798.
- E. Karpas, **M. Katz**, S. Markovitch, *When Optimal is Just Not Good Enough: Learning Fast Informative Action Cost-Partitioning*, The International Conference on Automated Planning and Scheduling (ICAPS), 2011, Friburg, Germany.
- **M. Katz**, C. Domshlak, *Optimal Additive Composition of Abstraction-based Admissible Heuristics*, The International Conference on Automated Planning and Scheduling (ICAPS), 2008, Sydney, Australia. **ICAPS Influential Paper (test-of-time) Award (2023)**

- Partially Satisfaction Planning

- G. Behnke, D. Speck, **M. Katz**, S. Sohrabi, *On Partial Satisfaction Planning with Total-Order HTNs*, The 33rd International Conference on Automated Planning and Scheduling (ICAPS), 2023, Prague, Czechia.

- **M. Katz**, G. Roeger, M. Helmert, *On Producing Shortest Cost-Optimal Plans*, The Fifteenth Annual Symposium on Combinatorial Search (SoCS), 2022, Vienna, Austria.
- **M. Katz**, E. Keyder, *A* Search and Bound-Sensitive Heuristics for Oversubscription Planning*, The 36th AAAI Conference on Artificial Intelligence (AAAI), 2022.
- D. Speck, **M. Katz** *Symbolic Search for Oversubscription Planning*, The 35th AAAI Conference on Artificial Intelligence (AAAI), 2021.
- **M. Katz**, E. Keyder, D. Winterer, F. Pommerening, *Oversubscription Planning as Classical Planning with Multiple Cost Functions*, The 29th International Conference on Automated Planning and Scheduling (ICAPS), 2019, Berkeley, CA, USA.
- **M. Katz**, V. Mirkis, *In Search of Tractability for Partial Satisfaction Planning*, 25th International Joint Conference on Artificial Intelligence (IJCAI), 2016, New York, NY, USA.
- Red-Black Planning
 - C. Domshlak, J. Hoffmann, **M. Katz**, *Red-black planning: a new systematic approach to partial delete relaxation*, Artificial Intelligence Journal (AIJ), 2015, Volume 221, pages 73-114.
 - D. Fiser, D. Gnad, **M. Katz**, J. Hoffmann, *Custom-Design of FDR Encodings: The Case of Red-Black Planning*, The 30th International Joint Conference on Artificial Intelligence (IJCAI), 2021, Montreal, Canada.
 - **M. Katz**, *Red-Black Heuristics for Planning Tasks with Conditional Effects*, The 33rd AAAI Conference on Artificial Intelligence (AAAI), 2019, Honolulu, HI.
 - **M. Katz**, J. Hoffmann, *Red-Black Relaxed Plan Heuristics Reloaded*, The Sixth Annual Symposium on Combinatorial Search (SoCS), 2013, Leavenworth, WA, USA.
 - **M. Katz**, J. Hoffmann, C. Domshlak, *Red-Black Relaxed Plan Heuristics*, 27th AAAI Conference on Artificial Intelligence (AAAI), 2013, Bellevue, WA, USA.
 - **M. Katz**, J. Hoffmann, C. Domshlak, *Who Said we Need to Relax All Variables?*, The International Conference on Automated Planning and Scheduling (ICAPS), 2013, Rome, Italy.
 - **M. Katz**, J. Hoffmann, *Pushing the Limits of Partial Delete Relaxation: Red-Black DAG Heuristics*, ICAPS Workshop on Heuristics and Search for Domain-independent Planning (HSDIP), 2014, Portsmouth, NH, USA.
- Planner Selection
 - T. Ma, P. Ferber, S. Huo, J. Chen, **M. Katz**, *Online Planner Selection with Graph Neural Networks and Adaptive Scheduling*, The 34th AAAI Conference on Artificial Intelligence (AAAI), 2020, New York, NY, USA.
 - S. Sievers, **M. Katz**, S. Sohrabi, H. Samulowitz, P. Ferber, *Deep learning for cost-optimal planning: Task-dependent planner selection*, The 33rd AAAI Conference on Artificial Intelligence (AAAI), 2019, Honolulu, HI, USA.
- State Pruning Techniques (Symmetry & Partial Order Reduction)
 - S. Sievers, G. Roeger, M. Wehrle, **M. Katz**, *Theoretical foundations for structural symmetries of lifted pddl tasks*, The 29th International Conference on Automated Planning and Scheduling (ICAPS), 2019, Berkeley, CA, USA.
 - G. Roeger, S. Sievers, **M. Katz**, *A Symmetry-based Task Reduction for Relaxed Reachability Analysis*, The 28th International Conference on Automated Planning and Scheduling (ICAPS), 2018, Delft, Netherlands.
 - S. Sievers, M. Wehrle, M. Helmert, **M. Katz**, *Strengthening Canonical Pattern Databases with Structural Symmetries*, The 10th Annual Symposium on Combinatorial Search (SoCS), 2017, Pittsburgh, PA, USA.
 - D. Winterer, Y. Alkhazraji, **M. Katz**, M. Wehrle, *Stubborn Sets for Fully Observable Nonde-*

- terministic Planning*, The International Conference on Automated Planning and Scheduling (ICAPS), 2017, Pittsburgh, PA, USA.
- D. Winterer, M. Wehrle, **M. Katz**, *Structural Symmetries for Fully Observable Nondeterministic Planning*, 25th International Joint Conference on Artificial Intelligence (IJCAI), 2016, New York, NY, USA.
 - A. Shleyfman, **M. Katz**, M. Helmert, S. Sievers, M. Wehrle, *Heuristics and Symmetries in Classical Planning*, 29th AAAI Conference on Artificial Intelligence (AAAI), 2015, Austin, TX, USA.
 - S. Sievers, M. Wehrle, M. Helmert, A. Shleyfman, **M. Katz**, *Factored symmetries for merge-and-shrink abstractions*, 29th AAAI Conference on Artificial Intelligence (AAAI), 2015, Austin, TX, USA.
 - S. Sievers, M. Wehrle, M. Helmert, **M. Katz**, *An Empirical Case Study on Symmetry Handling in Cost-Optimal Planning as Heuristic Search*, 38th German Conference on Artificial Intelligence (KI), 2015, Dresden, Germany.
 - M. Wehrle, M. Helmert, A. Shleyfman, **M. Katz**, *Integrating Partial Order Reduction and Symmetry Elimination for Cost-Optimal Classical Planning*, 24th International Joint Conference on Artificial Intelligence (IJCAI), 2015, Buenos Aires, Argentina.
 - C. Domshlak, **M. Katz**, A. Shleyfman, *Symmetry Breaking: Satisficing Planning and Landmark Heuristic*, The International Conference on Automated Planning and Scheduling (ICAPS), 2013, Rome, Italy.
 - C. Domshlak, **M. Katz**, A. Shleyfman, *Enhanced Symmetry Breaking in Cost-Optimal Planning as Forward Search*, The International Conference on Automated Planning and Scheduling (ICAPS), 2012, Sao Paulo, Brazil.
 - Novelty
 - A. Tuisov, **M. Katz**, *The Fewer the Merrier: Pruning Preferred Operators with Novelty*, The 30th International Joint Conference on Artificial Intelligence (IJCAI), 2021, Montreal, Canada.
 - **M. Katz**, N. Lipovetzky, D. Moshkovich, A. Tuisov, *Adapting Novelty to Classical Planning as Heuristic Search*, The International Conference on Automated Planning and Scheduling (ICAPS), 2017, Pittsburgh, PA, USA.

Planning and Reinforcement Learning

- Planning annotated RL (PaRL)
 - H. Kokel, J. Lee, **M. Katz**, S. Sohrabi, *Learning Parameterized Policies for Planning Annotated RL*, Sixth Workshop on Bridging the Gap Between AI Planning and Reinforcement Learning (PRL@IJCAI2023), 2023, Macao, S.A.R
 - J. Lee, **M. Katz**, D. J. Agravante, M. Liu, T. Klinger, M. Campbell, S. Sohrabi and G. Tesauero, *AI Planning Annotation in Reinforcement Learning: Options and Beyond*, ICAPS Workshop on Bridging the Gap Between AI Planning and Reinforcement Learning (PRL), 2021, Virtual.
 - B. Rozek, J. Lee, H. Kokel, **M. Katz**, S. Sohrabi, *Guiding Hierarchical Reinforcement Learning in Partially Observable Environments with AI Planning*, Seventh Workshop on Bridging the Gap Between AI Planning and Reinforcement Learning (PRL@ICAPS), 2024, Banff, Canada.
- Action Models & Rewards
 - S. Sreedharan, **M. Katz**, *Optimistic Exploration in Reinforcement Learning Using Symbolic Model Estimates*, The Thirty-seventh Conference on Neural Information Processing Systems

- (NeurIPS), 2023, New Orleans, LA, USA.
- C. Allen, **M. Katz**, T. Klinger, G. Konidaris, M. Riemer, G. Tesauro, *Efficient Black-Box Planning Using Macro-Actions with Focused Effects*, The 30th International Joint Conference on Artificial Intelligence (IJCAI), 2021, Montreal, Canada.
 - H. Kokel, J. Lee, **M. Katz**, K. Srinivas, S. Sohrabi, *On Reducing Action Labels in Planning Domains*, The 32nd International Joint Conference on Artificial Intelligence (IJCAI), 2023, Macao, SAR.
 - C. Gehring, M. Asai, R. Chitnis, T. Silver, L. Kaelbling, S. Sohrabi, **M. Katz**, *Reinforcement Learning for Classical Planning: Viewing Heuristics as Dense Reward Generators*, The 32nd International Conference on Automated Planning and Scheduling (ICAPS), 2022, Virtual.

Applications, Data, and AI Planning based solutions

- IBM Scenario Planning Advisor
 - S. Sohrabi, **M. Katz**, O. Hassanzadeh, O. Udrea, M. Feblowitz, A. Riabov, *IBM Scenario Planning Advisor: Plan recognition as AI planning in practice*, AI Communications Journal, 2019, Volume 32, pages 1-13.
 - S. Sohrabi, A. Riabov, **M. Katz**, O. Udrea, *An AI Planning Solution to Scenario Generation for Enterprise Risk Management*, The 32nd AAAI Conference on Artificial Intelligence (AAAI), 2018, New Orleans, LA, USA.
 - **M. Katz**, K. Srinivas, S. Sohrabi, M. Feblowitz, O. Udrea and O. Hassanzadeh, *Scenario Planning In The Wild: A Neuro-Symbolic Approach*, ICAPS Workshop on Planning for Financial Services (FinPlan), 2021, Virtual.
 - M. Feblowitz, O. Hassanzadeh, **M. Katz**, S. Sohrabi, K. Srinivas, O. Udrea, *IBM Scenario Planning Advisor: A Neuro-Symbolic ERM solution*, AAAI Demo, 2021, Virtual.
 - M. Feblowitz, O. Hassanzadeh, **M. Katz**, S. Sohrabi, K. Srinivas, O. Udrea, *IBM Scenario Planning Advisor: A Neuro-Symbolic ERM solution*, ICAPS Demo, 2020, Virtual.
 - S. Sohrabi, **M. Katz**, O. Hassanzadeh, O. Udrea, M. Feblowitz: *IBM Scenario Planning Advisor: Plan Recognition as AI Planning in Practice*, IJCAI Demos, 2018, Stockholm, Sweden.
 - O. Hassanzadeh, D. Bhattacharjya, M. Feblowitz, K. Srinivas, M. Perrone, S. Sohrabi, **M. Katz**, *Answering binary causal questions through large-scale text mining: An evaluation using cause-effect pairs from human experts*, 28th International Joint Conference on Artificial Intelligence (IJCAI), 2019, Macao, China.
- Data
 - **M. Katz**, J. Lee, S. Sohrabi, *Generating SAS+ Planning Tasks of Specified Causal Structure*, The 16th Annual Symposium on Combinatorial Search (SoCS), 2023, Prague, Czechia.
 - P. Ferber, T. Ma, S. Huo, J. Chen, **M. Katz**, *IPC: A Benchmark Data Set for Learning with Graph-Structured Data*, ICML Workshop on Learning and Reasoning with Graph-Structured Data, 2019, Long Beach, CA, USA.
 - **M. Katz**, S. Sievers, *Democratizing Usage of Planning Systems by Facilitating Research in Algorithm Selection for Planning*, ICAPS Workshop on The International Planning Competition (WIPC), 2019, Berkeley, CA, USA.
 - **M. Katz**, S. Sievers, *The Role of IPC in Setting Standards for Experimental Evaluation in Planning Research*, ICAPS Workshop on The International Planning Competition (WIPC), 2019, Berkeley, CA, USA.
- Other Applications
 - H. Ananthakrishnan, H. Kokel, K. Sikes, D. Bhattacharjya, **M. Katz**, S. Sohrabi, K. Srinivas, *QueryGym: Step-by-Step Interaction with Relational Databases*, AAAI 2026 Demonstra-

tions

- R. Christen, S. Eriksson, **M. Katz**, C. Muise, A. Petrov, F. Pommerening, J. Seipp, S. Sievers, D. Speck, *PARIS: Planning Algorithms for Reconfiguring Independent Sets*, The 26th European Conference on Artificial Intelligence (ECAI), 2023, Krakow, Poland.
- **M. Katz**, P. Ram, S. Sohrabi, O. Udrea, *Exploring Context-Free Languages via Planning: The Case for Automating Machine Learning*, The 30th International Conference on Automated Planning and Scheduling (ICAPS), 2020, Virtual.
- J. O. de Haro, E. Karpas, **M. Katz**, M. Toussaint, *A Conflict-driven Interface between Symbolic Planning and Nonlinear Constraint Solving*, in IEEE Robotics and Automation Letters and (IROS), 2022, Kyoto, Japan.
- M. Vukovic, S. Gerard, R. Hull, **M. Katz**, L. Shwartz, S. Sohrabi, C. Muise, J. Rofrano, A. Kalia, J. Hwang, D. Yabin, M. Jie, J. Zhuoxuan, *Towards Automated Planning for Enterprise Services: Opportunities and Challenges*, International Conference on Service-Oriented Computing (ICSOC), 2019, Toulouse, France.
- **M. Katz**, D. Moshkovich, E. Karpas, *Semi-Black Box: Rapid Development of Planning Based Solutions*, The 32nd AAAI Conference on Artificial Intelligence (AAAI), 2018, New Orleans, LA, USA.

Teaching

- *Introduction to Automated Planning*, Haifa University, Spring 2017
- *Heuristic Search Algorithms Seminar*, Saarland University, Winter 2012
- *Automatic Planning*, Saarland University, Winter 2012 (TA)
- *Automated Planning*, Technion (096208), Spring 2008, Spring 2009 (TA)
- *Introduction to Artificial Intelligence*, Technion (096210), Winter 2010 (TA)

Professional Memberships

- Senior Member, AAAI