Jendrik Seipp

Curriculum Vitae (December 2025)

Personal Details

Work address: Department of Computer and Information Science
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Google Scholar: citations: **2037**, h-index: **24**, i10: **50** (scholar.google.com/citations?user=FIJUptoAAAAJ)

Academic Appointments

since 09/2024 **Senior Associate Professor**
Head of the Machine Reasoning Lab at Linköping University, Sweden

09/2023–08/2024 **Associate Professor**
Head of the Machine Reasoning Lab at Linköping University, Sweden

01/2021–08/2023 **Assistant Professor**
Leader of the Representation, Learning and Planning Lab (informal research group) at Linköping University, Sweden

03/2018–12/2020 **Post-doctoral Researcher**
Artificial Intelligence research group at the University of Basel, Switzerland

03/2013–02/2018 **Research and Teaching Assistant**
Artificial Intelligence research group at the University of Basel, Switzerland

04/2010–12/2012 **Student Assistant**
Foundations of Artificial Intelligence research group at the University of Freiburg, Germany

04/2009–08/2009 **Student Assistant**
University Freiburg Medical Center, Germany

10/2007–03/2009 **Student Assistant**
Department of Psychology at the University of Freiburg, Germany

Education and Academic Degrees

09/2022 **Docent in Computer Science** (habilitation) from Linköping University, Sweden

02/2018 **PhD in Computer Science** from University of Basel, Switzerland
Thesis: *Counterexample-guided Cartesian Abstraction Refinement and Saturated Cost Partitioning for Optimal Classical Planning*
Grade *summa cum laude* (with distinction)

12/2012 **MSc in Computer Science** from University of Freiburg, Germany
Grade 1.1 (very good)

- Study abroad: Universidad Politécnica de Madrid, Spain

09/2009 **BSc in Computer Science** from University of Freiburg, Germany
Grade 1.1 (very good)

Visiting Positions

01/2020–12/2020 Robotics and Intelligent Systems group, University of Oslo, Norway
Project: *Model-based optimization for configuring modular robots*

07/2015–08/2015 Algorithms Lab, University of British Columbia, Vancouver, Canada
Project: *Automatic planner configuration and runtime prediction via machine learning*

Additional Training

Leadership and Management

10/2025–11/2025 **Zenith Leadership Program (Module 2)**, 3 days, Linköping University
University finances and project leadership.

03/2024–11/2024 **Chefsprogrammet** (Management Programme), 12 days, Linköping University
Personal and communicative leadership, administrative law, performance reviews, team development, redundancy, misconduct, change management, recruitment, finance, sustainability and conflict management.

10/2023–12/2023 **Zenith Leadership Program (Module 1)**, 3 days, Linköping University
Personal leadership, group development and communication.

10/2023–12/2023 **Chefsintroduktion** (Introductory Leadership Programme), 4 days, Linköping University
Leadership, the employer role, administrative law, work environment, managing teams, skills supply, salary setting, finance and security.

09/2020 **Leading and building a successful work environment**, 2 days, University of Basel
Leadership and communication styles.

05/2020 **Collaborating and moderating in virtual teams**, half day, University of Basel
Methods and tools for virtual teamwork.

Teaching and Supervision

09/2022–12/2022 **Course design and implementation**, 160 hours, Linköping University
Course coordination and examination, educational design theory, course planning and evaluation, design of physical and digital learning environments, inclusive teaching, regulations, reflective teaching practice, gender equality and sustainability.

09/2022–12/2022 **Becoming a teacher in higher education**, 160 hours, Linköping University
Pedagogical perspectives, teaching evaluation, legal context, lesson planning, digital tools, reflective practice, higher education values, pedagogical development, professional growth and continued development.

09/2021–12/2021 **PhD supervision course**, 60 hours, Institute of Technology, Linköping University
Reflective pedagogy and theory, regulatory and organizational frameworks, planning and assessing learning, collaborative supervision and responsibility sharing, quality and ethics in supervision.

Publications (Summary)

- 5 of 6 journal articles are published in the **flagship** AI journal JAIR.
- 39 papers at **A*** conferences AAAI, ICAPS, IJCAI, KR and NeurIPS.
- 7 papers at **A**-rated ECAI.
- 2 papers at **B**-rated SoCS.

Honors and Awards

Awards for Teaching

03/2025 **Distinguished Teacher Award**
for the course "Automated Planning" at the Department of Computer and Information Science at Linköping University, Sweden

- "With a passion for teaching, exceptional clarity in lectures, and a well-structured approach to labs and course materials, Jendrik has created an engaging and supportive learning environment that inspires students and enhances their understanding of key concepts in automated planning."

Awards for Academic Service

10/2025 **NeurIPS Top Reviewer Award**
at the 39th Annual Conference on Neural Information Processing Systems (NeurIPS 2025), San Diego, California, USA

Awards for Academic Publications

10/2025 **ICAPS Influential Paper Award**
for the paper "Counterexample-Guided Cartesian Abstraction Refinement (ICAPS 2013)"
at ICAPS 2025, Melbourne, Australia
(with Malte Helmert)

- "The ICAPS Influential Paper Awards honor significant and influential papers published at least ten years earlier in a planning and scheduling conference."

08/2021 **IJCAI Distinguished Paper Award**
for the paper "Learning Generalized Unsolvability Heuristics for Classical Planning"
at IJCAI 2021, held online
(with Simon Ståhlberg and Guillem Francès)

- Out of 4204 conference submissions, there were three winners of the award and one runner-up.

10/2020 **ICAPS Best Dissertation Award**
for the PhD dissertation "Counterexample-guided Cartesian Abstraction Refinement and Saturated Cost Partitioning for Optimal Classical Planning"
at ICAPS 2020 in Nancy, France

- "The ICAPS Best Dissertation Awards honor outstanding PhD theses in any area of automated planning and scheduling." There were two winners of the award.

05/2020 **SoCS Best Paper Award**
for the paper "An Atom-Centric Perspective on Stubborn Sets"
at SoCS 2020, held online
(with Gabriele Röger, Malte Helmert and Silvan Sievers)

- Out of 34 submissions, this was the sole recipient of the award.

06/2017 **SoCS Best Student Paper Award**
for the paper "Better Orders for Saturated Cost Partitioning in Optimal Classical Planning"
at SoCS 2017 in Pittsburgh, Pennsylvania, USA

- Sole recipient of the award (number of eligible submissions unknown).

02/2015 **AAAI Outstanding Paper Award**
for the paper "From Non-Negative to General Operator Cost Partitioning"
at AAAI 2015 in Austin, Texas, USA
(with Florian Pommerening, Malte Helmert and Gabriele Röger)

- Out of 1991 conference submissions, this was the sole recipient of the award.

Awards for Planning Systems

04/2025 **Winner, Explainability Challenge**
for the planning system "BeLiUga"
at the Beluga™ Competition
(with Elliot Gestrin, Gustaf Söderholm, Paul Höft, Mauricio Salerno and Daniel Gnad)

10/2023 **4x First Place, 2x Second Place (in six tracks)**
for the planning system "PARIS: Planning Algorithms for Reconfiguring Independent Sets"
at the 2nd Combinatorial Reconfiguration Challenge (CoRe Challenge 2023)
(with Remo Christen, Salomé Eriksson, Michael Katz, Christian Muise, Florian Pommerening, Silvan Sievers and David Speck)

07/2023 **Winner, Deterministic Optimal Track**
for the planning system "Ragnarok"
at the 10th International Planning Competition (IPC 2023)
presented at ICAPS 2023, Prague, Czech Republic
(with Dominik Drexler, Daniel Gnad, Paul Höft, David Speck and Simon Ståhlberg)

07/2023 **Winner, Deterministic Satisficing Track**
for the planning system "Scorpion Maidu and Levitron"
at the 10th International Planning Competition (IPC 2023)
presented at ICAPS 2023, Prague, Czech Republic
(with Augusto B. Corrêa, Guillem Francès, Markus Hecher and Davide Mario Longo)

07/2023 **Runner-Up, Deterministic Agile Track**
for the planning system "Fast Downward Stone Soup 2023"
at the 10th International Planning Competition (IPC 2023)
presented at ICAPS 2023, Prague, Czech Republic
(with Clemens Büchner, Remo Christen, Augusto Blaas Corrêa, Salomé Eriksson, Patrick Ferber and Silvan Sievers)

07/2022 **4x First Place, 3x Second Place, 1x Third Place (in nine tracks)**
for the planning system "PARIS: Planning Algorithms for Reconfiguring Independent Sets"
at the 1st Combinatorial Reconfiguration Challenge (CoRe Challenge 2022)
presented at ICALP 2022 Workshop on Combinatorial Reconfiguration, Paris
(with Remo Christen, Salomé Eriksson, Michael Katz, Emil Keyder, Christian Muise, Alice Petrov, Florian Pommerening, Silvan Sievers and David Speck)

06/2022 **Second Place, System Demonstrations Track**
for the planning system "Planutils: Bringing Planning to the Masses"
at the System Demonstrations Track
presented at ICAPS 2022, Virtual
(with Christian Muise, Florian Pommerening and Michael Katz)

06/2018 **Winner, Deterministic Sequential Satisficing Track**
for the planning system "Fast Downward Stone Soup 2018"
at the 9th International Planning Competition (IPC 2018)
presented at ICAPS 2018, Delft, The Netherlands
(with Gabriele Röger)

06/2018 **Winner, Deterministic Sequential Cost-Bounded Track**
for the planning system "Fast Downward Stone Soup 2018"
at the 9th International Planning Competition (IPC 2018)
presented at ICAPS 2018, Delft, The Netherlands
(with Gabriele Röger)

06/2016 **Winner, First Unsolvability International Planning Competition**
for the planning system "Fast Downward Aidos"
presented at ICAPS 2016, London, England
(with Florian Pommerening, Silvan Sievers, Martin Wehrle, Chris Fawcett and Yusra Alkhazraji)

10/2014 **Second Place and Best Learner Award, Learning Track**
for the planning system "Fast Downward Cedalion"
at the 8th International Planning Competition (IPC 2014)
presented at ICAPS 2014, Portsmouth, New Hampshire, USA
(with Silvan Sievers and Frank Hutter)

10/2014 **Third Place and Best Basic Solver Award, Learning Track**
for the planning system "Fast Downward SMAC"
at the 8th International Planning Competition (IPC 2014)
presented at ICAPS 2014, Portsmouth, New Hampshire, USA
(with Silvan Sievers and Frank Hutter)

06/2011 **Winner, Deterministic Sequential Optimization Track**
for the planning system "Fast Downward Stone Soup-1"
at the 7th International Planning Competition (IPC 2011)
presented at ICAPS 2011, Freiburg, Germany
(with Malte Helmert, Jörg Hoffmann, Erez Karpas, Emil Keyder, Raz Nissim, Silvia Richter, Gabriele Röger and Matthias Westphal)

06/2011 **Runner-up, Deterministic Sequential Satisficing Track**
for the planning system "Fast Downward Stone Soup-1"
at the 7th International Planning Competition (IPC 2011)
presented at ICAPS 2011, Freiburg, Germany
(with Malte Helmert, Erez Karpas, Silvia Richter and Gabriele Röger)

06/2011 **Runner-up, Learning Track**
for the planning system "Fast Downward Autotune-speed"
at the 7th International Planning Competition (IPC 2011)
presented at ICAPS 2011, Freiburg, Germany
(with Chris Fawcett, Malte Helmert, Holger Hoos, Erez Karpas, Gabriele Röger)

Awards at Programming Competitions

03/2011 **Third Place**
at the national programming competition (informatiCup) of the German society for Computer Science (GI) with Manuel Braun and Jonas Sternisko

03/2009 **Second Place**
at the national programming competition (informatiCup) of the German society for Computer Science (GI) with Manuel Braun

01/2008 **Finalist**
at the German national competition for e-learning applications (D-ELINA)

Other Awards

04/2013 **MFG Talent Award (*Talente-Preis*)**
at the third MFG talent day held by the Medien- und Filmgesellschaft Baden-Württemberg

Scholarships and Fellowships

11/2011–10/2012 **Karl Steinbuch Scholarship**
9 443 EUR by MFG Baden-Württemberg mbH
For the project *Abstraction Refinement for Classical Planning Problems* (sole PI)

11/2010–10/2011 **Karl Steinbuch Scholarship**
10 000 EUR by MFG Baden-Württemberg mbH
For the project *Learning Portfolios of Automatically Tuned Planners* (Co-PI with Manuel Braun and Johannes Garimort)

10/2009–10/2010 **Christoph Rüchardt Scholarship**
Scholarship for students with outstanding achievements during BSc studies

Grants and Funding

Since 2021, I have secured funding for nine projects as **sole PI**, totaling **57 560 000 SEK** (5 291 000 EUR), and I am **co-PI** for two projects (20 677 000 SEK ≃ 1 823 000 EUR in total), where my share is **5 527 000 SEK** (488 000 EUR).

Ongoing and Planned Projects

01/2027–12/2031 *Learning Reliable Algorithms for AI Planning* (sole PI)
10 000 000 SEK
Wallenberg Academy Fellowship from the Knut and Alice Wallenberg Foundation

- Out of 146 nominations from 12 universities, 26 were granted funding (17.8%).

08/2025–07/2030 *Parallel AI Planning* (sole PI)
15 000 000 SEK
Future Research Leaders grant from the Swedish Foundation for Strategic Research

- Out of 213 applications, 16 were granted funding (7.5%).

01/2025–12/2028 *Parallel AI Planning* (sole PI)
4 400 000 SEK
Starting Grant from Swedish Research Council

- Out of 419 applications, 57 were granted funding (14%).

11/2024–10/2028 *Data Structures for Parallel AI Planning* (sole PI)
5 430 000 SEK
Wallenberg AI, Autonomous Systems and Software Program

04/2024–03/2029 *AI for Attack Identification, Response and Recovery* (Co-PI)
20 000 000 SEK total, 4 850 000 SEK my share
Wallenberg AI, Autonomous Systems and Software Program NEST

01/2024–12/2027 *Robust Planning with Large Language Models* (sole PI)
3 440 000 SEK
CUGS Graduate School in Computer Science at Linköping University

09/2023–08/2027 *Neuro-Symbolic AI for Improving Energy Efficiency in 6G* (sole PI)
5 430 000 SEK
Wallenberg AI, Autonomous Systems and Software Program; Collaboration with Ericsson

09/2023–08/2027 *Collaborative Constraint-Based Planning* (sole PI)
5 430 000 SEK
Wallenberg AI, Autonomous Systems and Software Program

01/2023–12/2027 *Learning Trustworthy Planning Algorithms* (sole PI)
3 000 000 SEK
Zenith research grant from the Institute of Technology at Linköping University

Completed Projects

04/2023–10/2023 *Symbolic Search for Diverse Plans and Maximum Utility* (Co-PI)
60 000 EUR
Part of AIPlan4EU funded by European Commission Horizon 2020 programme

09/2021–08/2025 *Learning Dynamic Algorithms for Automated Planning* (sole PI)
5 430 000 SEK
Wallenberg AI, Autonomous Systems and Software Program

Invited Talks and Tutorials

Invited Talks at Major Conferences

10/2024 European Conference on Artificial Intelligence, Santiago de Compostela, Spain.
Speaker at the *Frontiers of AI* series for "particularly exciting and innovative work".
Topic: *Dissecting Scorpion: Ablation Study of an Optimal Classical Planner*.

Other Invited Talks

01/2026 WASP Winter Conference, Örebro, Sweden.
Topic: *Scalable AI Planning*.

09/2025 WASP International Scientific Advisory Board, Stockholm, Sweden.
Topic: *Scalable AI Planning*.

03/2025 Keynote Speaker at the STING Workshop, Linköping, Sweden.
Topic: *Combining Discrete and Continuous Reasoning for AI Planning*.

01/2023 Machine Reasoning Seminar, Ericsson, Virtual.
Topic: *Using Policy Sketches to Learn Subgoal Structure*.

03/2022 Neuro-Symbolic AI Seminar, IBM Research, Virtual.
Topic: *Learning Policy Sketches for Classical Planning*.

01/2022 WASP Winter Conference, Norrköping, Sweden.
Topic: *Learning Dynamic Algorithms for Automated Planning*.

06/2020 Robotics and Intelligent Systems group, University of Oslo, Norway.
Topic: *Model-Based Optimization with SMAC*.

01/2020 Robotics and Intelligent Systems group, University of Oslo, Norway.
Topic: *AI Planning, Abstractions and Cost Partitioning*.

07/2015 Algorithms Lab, University of British Columbia, Vancouver, Canada.
Topic: *Potential Heuristics for Optimal Classical Planning*.

09/2014 COnfiguration and SElection of ALgorithms Workshop (COSEAL 2014), Freiburg, Germany.
Topic: *Automatic Configuration of Sequential Planning Portfolios*.

11/2013 SGAICO Annual Assembly and Workshop (SGAICO 2013), Lausanne, Switzerland.
Topic: *Counterexample-guided Abstraction Refinement for Classical Planning*.

Summer and Winter Schools

12/2024 AI-on-Demand Winter School on AI & Robotics, Örebro, Sweden.
Topic: *AI Planning for Robots*.

Tutorials at Major Conferences

10/2020 Tutorial at the Thirtieth International Conference on Automated Planning and Scheduling (ICAPS 2020) held online.
Topic: *Evaluating Planners with Downward Lab*.

06/2015 Tutorial at the Twenty-Fifth International Conference on Automated Planning and Scheduling (ICAPS 2015) held in Jerusalem, Israel.
Topic: *Latest Trends in Abstraction Heuristics for Classical Planning* (with Malte Helmert and Silvan Sievers).

Panels

06/2022 32nd International Conference on Automated Planning and Scheduling (ICAPS 2022), Virtual.
Panel Topic: *Planning Competitions*.

Professional Service

Memberships

- Swedish AI Society (SAIS), since 2021
- Association for the Advancement of Artificial Intelligence (AAAI), since 2021

Journals

AIJ Artificial Intelligence Journal
- Reviewer (2017)

JAIR Journal of Artificial Intelligence Research
- Reviewer (2020, 2021, 2023, 2025)

Conferences

AAAI AAAI Conference on Artificial Intelligence
- PC member (2019, 2020, 2021, 2022, 2024, 2025)
- Reviewer (2014)

ECAI European Conference on Artificial Intelligence
- SPC member (2025)

ICAPS International Conference on Automated Planning and Scheduling
- Advocate (2020)
- Journal Track Co-Chair (2026)
- PC member (2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026)
- Reviewer (2018)

IJCAI International Joint Conference on Artificial Intelligence
- SPC member (2021)
- PC member (2019, 2020, 2022, 2023, 2024, 2025)
- Reviewer (2016)

NeurIPS Conference on Neural Information Processing Systems

- PC member (2025)

SoCS Symposium on Combinatorial Search

- PhD student mentor (2022, 2023, 2024)

Funding Agencies

International Reviewing for international funding agencies:

- Czech Republic, GACR (2024)

Sweden Reviewing for Swedish funding agencies:

- Knut and Alice Wallenberg Foundation, WASP Academic Doctoral Projects (2025)

Research Programs

WASP Wallenberg AI, Autonomous Systems and Software Program

- Member of the Research Management Group (since 01/2026)

External Expert

Examiner PhD students:

- Songtuan Lin, Australian National University, Australia (2025)
- Anubhav Singh, University of Melbourne, Australia (2024)

Reviewer Universities:

- Assistant Professor position at Mälardalen University, Västerås, Sweden (2024)

Workshops

WIPC ICAPS Workshop on the International Planning Competition

- Co-organizer (2024)

GenPlan IJCAI Workshop on Generalization in Planning

- Co-organizer (2022)

HSDIP ICAPS Workshop for Heuristics and Search for Domain-Independent Planning

- Co-organizer (2017, 2019, 2020)

Competitions

IPC International Planning Competition

- Co-organizer of the Learning Track (2023)

University Service

since 02/2025 Organizer of AIICS division peer-mentoring meetings at Linköping University

since 01/2024 Head (Enhetschef) of the Machine Reasoning Lab at Linköping University

since 11/2023 Member of the Board for Graduate Education at the Department of Computer and Information Science (IDA) at Linköping University

since 03/2021 Organizer of the AIICS division seminar at Linköping University

01/2021–12/2023 Leader of the Representation, Learning and Planning Lab (informal research group) at Linköping University

Public Outreach

10/2025 Popular Science Week, Linköping University, Sweden.
Topic: *AI Planning*.

10/2025 Science Day, Linköping University, Sweden.
Topic: *AI Planning: Teaching Machines to Think*.

06/2024 UVic AI Club, University of Victoria, Canada.
Topic: *Introduction to AI Planning*.

Teaching

since 2024 **Automated Planning** (MSc, English) at Linköping University
Role: Organizer, Sole Lecturer; Students: ∼25

since 2022 **Artificial Intelligence** (MSc, English) at Linköping University
Role: Lecturer; Students: ∼200

2022, 2023 **Automated Planning** (MSc, English) at Linköping University
Role: Lecturer; Students: ∼25

Fall 2022 **Basics of AI and Machine Learning** (MSc, English) at Linköping University
Role: Lecturer; Students: 77

Fall 2019 **Scientific Writing** (MSc, English) at the University of Basel
Role: Lecturer, Examiner; Students: 23

Fall 2019 **Seminar: Self-referentiality** (BSc, German) at the University of Basel
Role: Supervisor; Students: 7

Fall 2018 **Seminar: Graph Algorithms** (BSc, German) at the University of Basel
Role: Supervisor; Students: 8

Fall 2018 **Planning and Optimization** (MSc, English) at the University of Basel
Role: Tutor; Students: 26

2017, 2018, 2019 **Foundations of Artificial Intelligence** (BSc, English) at the University of Basel
Role: Assistant, Lecturer, Tutor; Students: ∼40

Fall 2014 **Seminar: Open Source Software Engineering** (BSc, German) at the University of Basel
Role: Organizer, Supervisor; Students: 21

2013, 2014, 2016 **Theory of Computer Science** (BSc, English/German) at the University of Basel
Role: Tutor; Students: ∼40

2013, 2015 **Seminar: Search & Optimization** (MSc, English) at the University of Basel
Role: Supervisor; Students: ∼10

Spring 2009 **Programming for Neuroscientists** (PhD, German) at the University of Freiburg
Role: Organizer, Sole Lecturer; Students: 20

Advising and Supervision

Postdoctoral Researchers (Linköping)

since 01/2026 Arman Mohammadi

since 01/2026 Jordan Thayer

since 04/2025 Dominik Drexler

since 01/2025 Arnaud Lequen

06/2022–05/2024 David Speck (continued as postdoc at the University of Basel)

02/2022–12/2022 Daniel Gnad (continued as assistant professor at Linköping University)

PhD Students (Primary Supervisor, Linköping)

since 05/2025 Markus Fritzsche, Linköping University
Deep Learning for AI Planning

since 03/2025 Windy Phung
Learning Admissible Heuristics for Classical Planning

since 11/2024 Oliver Harold Jørgensen
Parallel AI Planning

since 09/2024 Arash Haratian
Learning Planning Domain Models for Cybersecurity

since 01/2024 Elliot Gestrin
Robust Planning with Large Language Models

since 10/2023 Damien Van Meerbeeck
Collaborative Constraint-Based Planning

since 09/2023 Mika Skjelnes
Cost Partitioning for Multiple Sequence Alignment

since 09/2023 Kristina Levina
Neuro-symbolic AI for Energy Efficiency in 6G

since 06/2023 Farid Musayev
Learning Transition Classifiers for Classical Planning

09/2021–03/2026 Paul Höft
Computing Perfect Cost Partitioning Heuristics for Classical Planning

PhD Students (Co-supervisor)

since 07/2024 Martin Funkquist, Linköping University
Learning to Ground Existentially Quantified Goals

since 08/2023 Mauricio Salerno, Universidad Carlos III de Madrid
Finding Minimal Plan Reductions Using Classical Planning

11/2020–03/2025 Dominik Drexler, Linköping University
Learning and Exploiting Subgoal Structures in Classical Planning

Examiner of MSc Theses (Linköping)

06/2025 Martin Högstedt and Fabian Johansson (external thesis at Ericsson)
Memory Allocation Tracing for C++ Applications in Live Systems

05/2025 David Albrekt and Hanna Häger (external thesis at Toyota Material Handling)
Dynamic Error Handling in Automated Forklifts Using Large Language Models

03/2025 Venkata Satyanarayana Vamsy Gonnabathula
Autonomous Email Categorization using Machine Learning

05/2024 Elliot Gestrin
Robust LLM-driven Planning from Minimal Text Descriptions

05/2024 Oskar Gunnarsson and Joel Melkersson Dalén (external thesis at Affingo)
Machine Learning in Business Intelligence Platforms

08/2023 Viktor Carlsson
Finding Tractable Subsets of Intractable Planning Problems

06/2023 Hugo Axandersson
Compact Representations of State Sets in State Space Search

06/2023 Isak Toivanen and Maximilian Vorbrodt (external thesis at Ericsson)
io_uring and Linux UDP vs DPDK

03/2023 Martin Steen-Holmberg and Ellen Brunnström Rockborn (external thesis at Link22 AB)
You shall not pass! — Investigating virtualization of a data diode using SDN

Supervisor of MSc Theses (Linköping)

03/2023 Rachel Homssi and Jacob Möller (external thesis at Ericsson)
Load Balancing in the Edge Cloud with Service Degradation

Supervisor of MSc Theses (Basel)

01/2015 Patrick von Reth
Empirical Evaluation of Search Algorithms for Satisficing Planning

Supervisor of BSc Students (Basel)

10/2020 Caroline Steiblin
Bounded Suboptimal Search for Classical Planning

07/2019 Martin Zumsteg
Refinement Strategies for Counterexample-Guided Cartesian Abstraction Refinement

05/2019 Samuel von Allmen
Computing Abstract Plans for Counterexample-Guided Cartesian Abstraction Refinement

06/2018 Clemens Büchner
Abstraction Heuristics for Rubik's Cube

03/2017 Daniel Killenberger
Diversifying Greedy Best-First Search by Clustering States

12/2013 Beat Hänger
Phase Transitions in the Solvability of Sokoban

Software and Tools

Downward Lab — Experiment framework (creator and maintainer)
Used by many researchers to evaluate planning systems.

Fast Downward — Planning system (co-maintainer)
The de-facto standard foundation for research in classical planning.

Scorpion — Planning system (creator and maintainer)
Extends Fast Downward with state-of-the-art algorithms for optimal classical planning.

Pyperplan — Python planner (co-creator and co-maintainer)
A planning system for educational purposes.

RedNotebook — Desktop journal (creator and maintainer)
The most popular cross-platform desktop journal with millions of downloads.

Vulture — Python dead code detector (creator and maintainer)
Used by thousands of developers, including Facebook, Microsoft, Netflix and Red Hat.