

Shashank SHEKHAR, Ph.D.

Personal Information

Website: <https://shekharsai.github.io/> **Nationality:** Indian
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Address: Apt. 125, 18 Rue, Notre Dame, 31400 Toulouse, France

Education

2016-2021 Ben-Gurion University of the Negev, Beer Sheva, Israel
Doctor of Philosophy (Ph.D.)
The Department of Computer Science
Thesis: *Collaborative Multi-Agent Planning with Partial Observability and Interacting actions*
Advisor: Prof. Ronen I. BRAFMAN

2013-2016 Indian Institute of Technology Madras, Chennai, India
Master of Science (M.S.) by Research
Department of Computer Science & Engineering
Thesis: *Learning and Strengthening Meta-Heuristics in Plan-Space Planning*
Advisor: Prof. Deepak KHEMANI

2007-2011 Guru Gobind Singh Indraprastha University, India
Bachelor of Technology
Department of Information Technology, CBPGEC Delhi, New Delhi
Information Technology (*with distinction*)

Work Experience

Oct., 2021 – * Host laboratory : LAAS-CNRS, Toulouse, France
(Postdoctoral) Research Associate
The Robotics and InteractionS team
Currently working with Dr. Rachid ALAMI and Dr. Madalina CROITORU from LIRMM Montpellier on integrating *human aware task planning and knowledge representation & reasoning*

Mar. Sept., 2021 Ben-Gurion University of the Negev, Beer Sheva, Israel
Postdoctoral Researcher
The Department of Computer Science
worked with Prof. Ronen I. BRAFMAN on *multi-agent planning and decision making under uncertainty and partial observability*

2011-2012 Infosys Limited, Karnataka, India
System Engineer
Java and C# developer (Mysore & Mangalore Development Centers)

Skills

Software Java, C#, C++, Python, Linux, ROS, OpenCV, PCL, PyTorch, TensorFlow, GitHub, TeX

Research Interests Multi-Agent Systems, Automated Planning, Human Aware Planning and Decision Making, Multi-Agent Pathfinding, Decision Making under Uncertainty, Multi-Agent Epistemic Planning, Human-Robot Interaction, Cognitive Robotics, Automated Intersections for Intelligent Robots/Vehicles

Journal Publication(s)

J. Artif. Intell. Res. (2021) *Safe multi-agent pathfinding with time uncertainty.* Tomer SHAHAR, **Shashank SHEKHAR**, Dor ATZMON, Abdallah SAFFIDINE, Brendan JUBA, and Roni STERN

Artif. Intell. Journal (2020) *Representing and planning with interacting actions and privacy.* **Shashank SHEKHAR** and Ronen I. BRAFMAN

Conference Publication(s) (*recent ones*)

- SGAI 2023 *A knowledge rich task planning framework for human-robot collaboration.* **Shashank SHEKHAR**, Anthony FAVIER, Rachid ALAMI, and Madalina CROITORU
- RO-MAN 2023 *Models and algorithms for human-aware task planning with integrated theory of mind.* Anthony FAVIER, **Shashank SHEKHAR**, and Rachid ALAMI
- ICAPS 2021 *Verifying plans and scripts for robotics tasks using performance level profiles.* Alexander KOVALCHUK, **Shashank SHEKHAR**, and Ronen BRAFMAN
- AAAI 2021 *Improved knowledge modeling and its use for signaling in multi-agent planning with partial observability.* **Shashank SHEKHAR**, Ronen I. BRAFMAN, and Guy SHANI
- ICAPS 2019 *A factored approach to deterministic contingent multi-agent planning.* **Shashank SHEKHAR**, Ronen I. BRAFMAN, and Guy SHANI
- ICAPS 2018 *Representing and planning with interacting actions and privacy.* **Shashank SHEKHAR** and Ronen I. BRAFMAN

Workshop/Symposium Publication(s) (*selected ones*)

- PlanRob @ICAPS, 2023* *Anticipating False Beliefs and Planning Pertinent Reactions in Human-Aware Task Planning with Models of Theory of Mind.* Anthony FAVIER, **Shashank SHEKHAR**, and Rachid ALAMI
- AAAI Symposium, 2022* *Robust Planning for Human-Robot Joint Tasks with Explicit Reasoning on Human Mental State.* Anthony FAVIER, **Shashank SHEKHAR**, and Rachid ALAMI
- EpiP @ICAPS 2020* *Signaling in contingent multi-agent planning.* **Shashank SHEKHAR**, Ronen I. BRAFMAN, and Guy SHANI
- PlanRob @ICAPS 2020* *ROS-POMDP - A Platform for Robotics Planning using PLPs and RDDDL in ROS.* Or WERTHEIM, Ronen I. BRAFMAN, **Shashank SHEKHAR**, Tal FEINER, and Igal PINSKY

Synergistic Activities

- Reviewer* IEEE RA-L 2022-23 & ICRA 2024, SN journal of CS 2022-23
- PC member* Association for the Advancement of Artificial Intelligence (AAAI): 2021 2022
- Co-organizer* The DMAP workshop at ICAPS 2020

References

- Ronen Brafman* (*Ph.D. Advisor*) Professor, BGU of the Negev, Beer Sheva, Israel, *email:* brafman@cs.bgu.ac.il
- Rachid Alami* (*Host @LAAS*) Directeur de Recherche, LAAS-CNRS, France, *email:* rachid.alami@laas.fr
- Guy Shani* (*Collaborator*) Asst. Prof., BGU of the Negev, Beer Sheva, Israel, *email:* shanigu@bgu.ac.il
- Roni Stern* (*Collaborator*) Assoc. Prof., BGU of the Negev, Beer Sheva, Israel, *email:* roni.stern@gmail.com