Yash Shukla

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Education

2020 – 2025 **Tufts University**, Medford, MA, United States
Ph.D. in Computer Science, Advisor: *Prof. Jivko Sinapov*

2018 – 2020 **Worcester Polytechnic Institute**, Worcester, MA, United States
Master of Science in Robotics Engineering

2014 – 2018 **Birla Institute of Technology and Science,** , Pilani, India
Bachelor of Engineering (Hons.) in Mechanical Engineering

Research Interests

○ Reinforcement Learning
○ Robotics / Robot Learning
○ Foundational Models (LLMs)

○ Neurosymbolic AI
○ Sequential Decision Making
○ Multi-agent systems

Industry Internships

Summer 2024 Research Intern, **Autodesk Research**

Fall 2023, Spring 2024 Research Intern, **Mitsubishi Electric Research Labs**, hosted by Siddarth Jain

Summer 2022 Research Internship, **Georgia Tech Research Institute**, hosted by Robert Wright

Summer 2019 Internship at Computer Vision Group, **MathWorks**

Spring 2018 Internship at **Centre for AI and Robotics**, Bangalore

Conference Publications

ICAPS 2024 **Yash Shukla**, Tanushree Burman, Abhishek Kulkarni, Robert Wright, Alvaro Velasquez, Jivko Sinapov, "Logical Specifications-guided Dynamic Task Sampling for Reinforcement Learning Agents", *International Conference on Automated Planning and Scheduling*

AAMAS 2024 **Yash Shukla**, Wenchang Gao, Vasanth Sarathy, Alvaro Velasquez, Robert Wright, Jivko Sinapov, "LgTS: Dynamic Task Sampling using LLM-generated sub-goals for Reinforcement Learning Agents", *International Conference on Autonomous Agents and Multi-Agent Systems*

IROS 2023	**Yash Shukla**, Bharat Kesari, Shivam Goel, Robert Wright, and Jivko Sinapov, "A Framework for Few-Shot Policy Transfer through Observation Mapping and Behavior Cloning", *International Conference on Intelligent Robots and Systems*
ICAPS 2023	**Yash Shukla**, Abhishek Kulkarni, Robert Wright, Alvaro Velasquez, and Jivko Sinapov, "Automaton-Guided Curriculum Generation for Reinforcement Learning Agents" , *International Conference on Automated Planning and Scheduling*
AAMAS 2022	**Yash Shukla**, Christopher Thierauf, Ramtin Hosseini, Gyan Tatiya, Jivko Sinapov, "ACuTE: Automatic Curriculum Transfer from Simple to Complex Environments", *International Conference on Autonomous Agents and Multiagent Systems*
ICDL 2022	Shivam Goel*, **Yash Shukla*** , Vasanth Sarathy, Matthias Scheutz, and Jivko Sinapov, "RAPid-Learn: A Framework for Learning to Recover for Handling Novelties in Open-World Environments", *International Conference on Development and Learning * - Denotes equal contribution*
RSS 2022	**Yash Shukla**, Jivko Sinapov, "A Framework for Curriculum Schema Transfer from Low-Fidelity to High-Fidelity Environments", *Closing the Reality Gap in Sim2Real Transfer for Robotics at Robotics: Science and Systems*
ICRA 2022	**Yash Shukla**, Kaleb Loar, Robert Wright, Jivko Sinapov, "An Object-Oriented Approach for Generating Low-Fidelity Environments for Curriculum Schema Transfer", *Scaling Robot Learning Workshop at International Conference on Robotics and Automation*
IROS 2020	Gyan Tatiya, **Yash Shukla**, Michael Edegware and Jivko Sinapov, "Haptic Knowledge Transfer Between Heterogeneous Robots using Kernel Manifold Alignment", *International Conference on Intelligent Robots and Systems*

Teaching

Instructor	Reinforcement Learning at Tufts University (Spring 2024, Fall 2023)
Teaching Assistant	Big Data at Tufts University (Fall 2020)
Peer Learning Assistant	Physics 101 at Worcester Polytechnic Institute (Fall 2019, Spring 2020)

Invited Talks and Guest Lectures

Oct 2022	Human-Robot Interaction Colloquium at Tufts University
Sept 2020	Robotics Seminar at Worcester Polytechnic Institute

Grants

Travel	AAMAS 2024 travel grant - USD 1600
Travel	ICAPS 2023 travel grant - USD 1200

Mentoring

Tufts	Wenchang Gao, Bharat Kesari, Tanushree Burman, Anirudh Nair, Wei Wo Lin

▬▬ Service

Reviewer	RLC 2024, AAMAS 2023, ICRA 2024, RA-L 2024, Artificial Intelligence for Autonomous Driving at IJCAI-ECAI 2022
Student Volunteer	ICRA 2022, RLDM 2023 (Head volunteer)
Program Committee	Artificial Intelligence for Autonomous Driving at IJCAI-ECAI 2022

▬▬ References

○ Prof. Jivko Sinapov
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Tufts University
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○ Dr. Robert Wright
Senior Research Scientist,
Georgia Tech Research Inst.
robert.wright@gtri.gatech.edu

○ Dr. Alvaro Velasquez
Program Manager
DARPA
alvaro.velasquez@darpa.mil