Itamar Mishani

✉ imishani@andrew.cmu.edu 📞 +1-412-9099-937 📇 Pittsburgh (PA), USA

🔗 Itamar Mishani ⬡ imishani 🌐 https://robotics.eng.tau.ac.il/

Education

Aug 2022 – Present	**Carnegie Mellon University, Robotics Institute, USA** *PhD in Robotics, School of Computer Science*
Sep 2020 – Jul 2022	**Tel-Aviv University, Israel** *MSc in Mechanical Engineering, Robotics specialization, outstanding achievements direct program* • *Summa cum laude* **GPA:** 96/100

Sep 2017 – Jul 2021	**Tel-Aviv University, Israel**
	 BSc in Mechanical Engineering, outstanding students program
	 • *Summa cum laude*
	  – 2020/2021 ***Rector's*** *Honor List*
	  – 2020/2021 ***Dean's*** *List*
	  – 2019/2020 ***Dean's*** *List*
	  – 2018/2019 ***Dean's*** *List*
	  – 2017/2018 ***Dean's*** *List*
	 GPA: 96/100 (Ranked 1st in class)

Jul 2011	**Harel High School**, *Israel* *Majored in Physics, Chemistry, Math and Music*

Experience

Jul 2020 - Jul 2022	**Researcher**, *Tel-Aviv University, Israel* • Robotics, AI and Algorithms researcher and developer. Developed real-time non-visual shape estimation and robotic dual-arm manipulation control of elastics wires Advisor: Prof. Avishai Sintov **Teaching Assistant**, *Tel-Aviv University, Israel* • *"Introduction to Robotics"*, School of Mechanical Engineering • *"Control Lab"*, School of Mechanical Engineering • *"Mechanics of Solids (1)"*, School of Mechanical Engineering • *"Robotics and control lab"*, Designed and created course material, School of Mechanical Engineering
Oct 2021 - May 2022	**Autonomous Race Car Co-Leader**, *Formula Race Team, Tel-Aviv University, Israel* • Leader of automation team
Mar 2021 - Oct 2021	**Control Team**, *Formula Race Team, Tel-Aviv University, Israel* • Developing "Formula Student" control system
Nov 2018 - Jul 2020	**Undergraduate Researcher**, *Tel-Aviv University, Israel* • System Engineering and Networks - *"Breaking monolith systems into modules: Computational Complexity"*. Advisor: Prof. Yoram Reich
Jan 2017 - Sep 2017	**PET (Israel SAT) Teacher**, *Psychometry Academy, Israel*
Mar 2012 - Jul 2016	**Military Service**, *IDF* *Company deputy chief (Lieutenant)* • Acting both as company commander and second in command at Search and Rescue fighters unit

Skills

Technical Skills	• Programming - ROS (Robot operating system), Python, Arduino, Pytorch • Solidworks • Microcontrollers and Mechatronics
Other Skills	• Guitarist • Kitesurfer

Publications

2024 1. Shaoul*, Y., Mishani*, I., Li, J. & Likhachev, M. Accelerating Search-Based Planning for Multi-Robot Manipulation by Leveraging Online-Generated Experiences. *Under review for publication at the International Conference on Automated Planning and Scheduling (ICAPS 2024).* (2024).

2023 2. Mishani, I., Feddock, H. & Likhachev, M. Constant-time Motion Planning with Anytime Refinement for Manipulation. *Under review for publication at the 2024 IEEE International Conference on Robotics and Automation (ICRA 2024).* arXiv: 2311.00837 [cs.RO] (2023).

2022 3. Mishani, I. & Sintov, A. Learning configurations of wires for real-time shape estimation and manipulation planning. *Engineering Applications of Artificial Intelligence, vol. 121, pp. 105967, Jan. 2023, doi: https://doi.org/10.1016/j.engappai.2023.105967* (2022).

4. Mishani, I. & Sintov, A. Real-time Non-visual Shape Estimation and Robotic Dual-Arm Manipulation Control of an Elastic Wire. *IEEE Robotics and Automation Letters, vol. 7, no. 1, pp. 422-429, Jan. 2022, doi: 10.1109/LRA.2021.3128707., with presentation in the 2022 IEEE International Conference on Robotics and Automation (ICRA), Philadelphia (PA), USA* (2022).