

Osher Azulay

Passionate Robotist

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Education

2020 - Present	Ph.D., Mechanical Engineering, Tel Aviv University <i>Research Area: Learning In-Hand Perception and Manipulation with Adaptive Robotic Hands</i>
2018 - 2020	M.Sc., Mechanical Engineering, Ben Gurion University <i>Outstanding students program (93.8/100 GPA)</i> <i>Thesis: Wheel Loader Scooping Controller Using Deep Reinforcement Learning</i>
2015 - 2019	B.Sc., Mechanical Engineering, Ben Gurion University <i>Graduated with honors (90.1/100 GPA)</i> <i>Certificate of achievement: 2017-2018, 2018-2019</i>

Work Experience

2020 - Present	Graduate Researcher , 🌐 ROB-TAU Robotics Lab, Tel-Aviv University <ul style="list-style-type: none">Research of machine learning and planning algorithms for in-hand robotic manipulations
2018 - 2020	Student Researcher , 🌐 BGU Robotics Control Lab, Ben-Gurion University <ul style="list-style-type: none">Design and control of autonomous custom-built wheel loader using reinforcement learning
2016 - 2018	Research Assistant , 🌐 BGU Robotics Control Lab, Ben-Gurion University <ul style="list-style-type: none">Worked on various ROS based robotic platforms, including robotic arms and mobile robots

Teaching Experience

Spring 2022	Robotics and control lab , Designed and created course material, Mech Eng., Tel-Aviv University
Fall 2020 & 21	Intro to control theory , Teaching Assistant, Mech Eng., Tel-Aviv University
Spring 2019	Intro to Electrical Engineering , Teaching Assistant, Mech Eng., Ben-Gurion University
Fall 2019	C Programming , Teaching Assistant, Mech Eng., Ben-Gurion University
Fall 2018	Intro to Mechanical Engineering , Lab Instructor, Mech Eng., Ben-Gurion University

Publications

2022	1. Azulay, O. , Ben-David, I. & Sintov, A. Learning Haptic-based Object Pose Estimation for In-hand Manipulation with Underactuated Robotic Hands (Under Review). <i>IEEE Robotics and Automation Letters</i> (2022).
2021	2. Azulay, O. & Shapiro, A. Wheel Loader Scooping Controller Using Deep Reinforcement Learning. <i>IEEE Access</i> 9, 24145–24154 (2021).
	3. Bamani, E., Azulay, O. , Gurevich, A. & Sintov, A. Open-Sourcing Generative Models for Data-driven Robot Simulations. <i>Data-Centric AI workshop, NeurIPS2021</i> (2021).

Skills

Programming	Python, MATLAB, C/C++
Tools & libraries	ROS, Gazebo, PyTorch, TensorFlow, OpenCV, Git
Engineering	Solidworks, Microcontrollers and Mechatronics

Talks & Recognition

2022	Invited to talk at the annual meeting for Motion Control and Automation , Expo, Tel Aviv
2021	BrainStromIL Hackathon First Place , Awarded 1st among more than 30 teams