

Contact

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(LinkedIn)

Top Skills

Nav2

C++

Python (Programming Language)

Certifications

Improving Deep Neural Networks:
Hyperparameter tuning,
Regularization and Optimization

A Complete Reinforcement Learning
System (Capstone)

LLM Engineering: Master AI, Large
Language Models & Agents

ROS2 Nav2 [Navigation 2 Stack] -
SLAM & Navigation

Math works Simulink Control Design
Onramp

Patents

Methods and apparatus to reduce an
action space for workload execution

Yair Nahum

Senior FW Engineer | M.Sc. in Robotics & AI (Technion) | ML, DL,
GenAI, RL Enthusiast

Israel

Summary

I am a Senior FW Engineer, now specializing in Robotics and Artificial Intelligence.

After several years of solving complex, low-level engineering challenges, I completed my M.Sc. in Robotics at the Technion with excellent grades. My projects focused on autonomous systems, giving me hands-on experience in applying advanced AI techniques to real-world robotics problems.

I bring a unique blend of industry-proven engineering expertise and cutting-edge AI/Robotics knowledge. I thrive at the intersection of hardware and intelligence, building solutions that are efficient, scalable, and adaptive.

I am passionate about applying ML, RL, and GenAI to create autonomous systems that can learn, adapt, and make intelligent decisions in dynamic environments.

Areas of interest: Robotics, Machine Learning, Reinforcement Learning, Generative AI, Autonomous Systems, Control, Computer Vision.

Experience

Technion - Israel Institute of Technology

Mobile Robots - F1TENTH Sim Racing with Nav2 MPPI controller
September 2024 - Present (1 year 1 month)

Haifa, Haifa District, Israel

Integrated the ROS 2 Navigation (Nav2) stack, and Developed custom ROS 2 nodes in C++/Python for real-time, sampling-based control of an autonomous race car simulation platform (F1TENTH AutoDrive Sim racing League).

Integrated the Model Predictive Path Integral (MPPI) controller with Nav2's modular framework (BT Navigator, costmaps, transforms, map server) replacing the default controller.

Validated performance in simulation environments, demonstrating smoother trajectories, better handling of sharp turns, and adaptive behavior under dynamic scenarios.

Intel Corporation
Senior SW Engineer
July 2012 - Present (13 years 3 months)
Haifa, Israel

Zoran
Real time embedded SW engineer
March 2006 - July 2012 (6 years 5 months)
Haifa Area, Israel

Intel Corporation
partial time SW work as a student
March 2004 - March 2006 (2 years 1 month)
Intel

Education

Technion - Israel Institute of Technology
Master of Science - MS, AI and Robotics · (October 2019 - August 2025)

Technion - Israel Institute of Technology
Bsc, Computer's science · (2001 - 2006)