



Noam Smilovich

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ABOUT ME

I am a first-year Ph.D. student in Computer Science with a strong interdisciplinary background. My core research is dedicated to Intrinsic Robot Learning in Multimodal, Contact-Rich Environments. My research methodology leverages Information-Theoretic Control and Hybrid Dynamical Systems to enable robots to acquire complex behaviors and adapt robustly to real-world scenarios. My goal is to advance the foundations of self-motivated, perceptually-aware robotic intelligence.

EDUCATION

PhD in Computer Science

2025 – Present

Texas Tech University, Lubbock, TX

- Advisor: Dr. Stas Tiomkin

MSc in Software Engineering

2022 – 2024

San José State University, San José, CA

- Thesis: Data-Driven Control of Acoustic Waves Using Movable and Flexible Scatterers.
- Thesis Advisor: Dr. Stas Tiomkin

MSc in Electrical and Electronics Engineering

2017 – 2020

Tel Aviv University, Tel Aviv, Israel

- Thesis: Ka-Band Power Amplifier and Digitally Controlled Attenuator in CMOS 130nm.
- Thesis Advisor: Prof. Eran Socher

BSc in Electrical and Electronics Engineering

2014 – 2018

Tel Aviv University, Tel Aviv, Israel

AWARDS

Graduate Teaching Assistant of the Year

2025

- Awarded by the Department of Computer Science, Whitacre College of Engineering at Texas Tech University for outstanding performance as a Graduate Teaching Assistant.

Outstanding Thesis Award

2025

- University-wide award for the most outstanding master's thesis published in 2024–2025, granted by the College of Graduate Studies at San José State University.
- Award amount: \$1,000. Presented at the University Commencement Ceremony.

Research, Scholarship, and Creative Activity (RSCA) Fellowship

2024

- A competitive award for scholarly and creative activities, College of Engineering at San Jose State University.
- Award amount: \$3,000.

PUBLICATIONS AND PRESENTATIONS

Publications

- **N. Smilovich**, “Data-driven control of acoustic waves using movable and flexible scatterers,” M.Sc. thesis, San Jose State Univ., San Jose, CA, 2024.
- T. Shah*, **N. Smilovich***, S. Gerges, F. Amirkulova, S. Tiomkin, “Acoustic wave manipulation through sparse robotic actuation,” in *Proceedings of the IEEE International Conference on Robotics and Automation*, 2025.
- **N. Smilovich**, “Ka-band power amplifier and digitally controlled attenuator in CMOS 130nm,” M.Sc. thesis, School of Electr. Eng., Tel Aviv Univ., Tel Aviv, Israel, 2020.
- S. Londhe, **N. Smilovich**, S. Avner, N. Bar-Helmer, S. Jameson, and E. Socher, “34-42GHz CMOS transceiver frontend for versatile arrays,” 2020 15th European Microwave Integrated Circuits Conference (EuMIC), Utrecht, Netherlands, 2021, pp. 73-76.

Presentations

- T. Shah*, **N. Smilovich***, S. Gerges, F. Amirkulova, S. Tiomkin, “Acoustic wave manipulation through sparse robotic actuation,” poster presented at Research Showcase during Board meeting at the CS Department, Texas Tech University, Oct 2024, based on the corresponding paper.

EXPERIENCE

Graduate Teaching Assistant

2025

Department of Computer Science, Texas Tech University, Lubbock, TX

- Senior Capstone Course (CS 4366): Managed course logistics and project execution for 75 students, including check-in meetings between student groups and local partner company; oversaw all grading and milestone tracking.
- Generative AI (CS 5331/4331): Contributed directly to course content development by preparing a significant portion of lecture slides and designing a homework assignment; responsible for grading and providing detailed feedback.

Research Assistant

2025

Computational Intelligence, Control & Information Lab, Texas Tech University, Lubbock, TX

- Research hybrid dynamical systems in robotics, focusing on information-theoretic control and learning-based methods to analyze and optimize behavior in non-differentiable, contact-rich environments.

Research Assistant

2024

Computational Intelligence Lab, San Jose State University, San José, CA

- Research and development of machine learning approaches for controlling acoustic wave propagation, incorporating state-of-the-art AI architectures and predictive modeling techniques.

Instructional Student Assistant – Data Structures and Algorithms in C++

2023

College of Engineering, San Jose State University, San José, CA

- Provided instructional support for the course by grading assignments, addressing student inquiries, and managing grade appeals.

Media Architecture Systems Engineering Intern

2023

Micron Technology, San José, CA

- Developed system architecture validation tools for NAND flash memory command sequences, improving reliability and testing efficiency.

System Integration Engineer – 5G Modem

2020 – 2021

Qualcomm, Israel

- Contributed to system integration and validation efforts for 5G modem development, focusing on performance optimization and cross-functional feature implementation.

Research Assistant

2017 – 2020

Faculty of Engineering, Tel Aviv University, Israel

- Designed RFICs as part of a research group, with circuits sent for tape-out, followed by post-fabrication testing and characterization in the university’s high-frequency integrated circuits lab.

Lab Instructor - Analog Circuits Lab

2017 – 2020

Faculty of Engineering, Tel Aviv University, Israel

- Provided instructional support by conducting tutorials, grading assignments, addressing student inquiries, and managing grade appeals.

VOLUNTEER EXPERIENCE

Research Mentor

2024

San Jose State University, San José, CA

- Conducted instructional tutorials and participated in weekly mentoring sessions to guide high school and community college students on a project at the intersection of acoustics research and machine learning.

OPEN-SOURCE CONTRIBUTIONS

Waves.jl

2024

- Enhanced the Waves.jl simulator and its deep learning model by extending configuration options, improving flexibility, and supporting more diverse use cases in wave physics simulations.
Repository: <https://github.com/gladisor/Waves.jl>