Noam Smilovich

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Education

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

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.

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.

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. Shmilovitz**, 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 paper under review.

Experience

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