Assaf Ben-Kish - Curriculum Vitae

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Education

- 2022 Present: PhD (Direct Track) in Electrical Engineering, Tel-Aviv University, Israel
 Specializing in Deep Learning and Large Language Models, supervised by Prof. Raja Giryes
 Current GPA: 99.27/100
- 2018 2022: B.Sc. in Electrical Engineering and Computer Science, Technion, Israel
 Specialized in Machine Learning and Signal Processing
 Final GPA: 91.3/100 Magna Cum Laude, included in the President's honor list and Dean's honor list

Publications

- Overflow Prevention Enhances Long-Context Recurrent LLMs
 Assaf Ben-Kish, Itamar Zimerman, M. Jehanzeb Mirza, James Glass, Leonid Karlinsky, Raja Giryes. COLM 2025. link
- DeciMamba: Exploring the Length Extrapolation Potential of Mamba
 Assaf Ben-Kish, Itamar Zimerman, Shady AH, Nadav Cohen, Amir Globerson, Lior Wolf, Raja Giryes. ICLR 2025. link
- Mitigating Open-Vocabulary Caption Hallucinations
 Assaf Ben-Kish, Moran Yanuka, Morris Alper, Raja Giryes, Hadar Averbuch-Elor. EMNLP 2024. link
- Bridging the Visual Gap: Fine-Tuning Multimodal Models with Knowledge-Adapted Captions

 Moran Yanuka, <u>Assaf Ben-Kish</u>, Yonatan Bitton, Idan Szpektor, Raja Giryes. NAACL 2025 (Oral). <u>link</u>
- Constant Beamwidth LCMV Beamformer
 Ariel Frank, <u>Assaf Ben-Kish</u>, Israel Cohen. EUSIPCO 2022. <u>link</u>

Awards and Scholarships

- KLA Award for PhD Excellence 2025
- Direct-Track PhD Scholarship from The Center for AI & Data Science, Tel-Aviv University 2024
- Travel Grant from The Center for AI & Data Science, Tel-Aviv University 2024
- Award of Excellence for M.Sc Students, Engineering Department, Tel-Aviv University 2024

Talks

- MIT CSAIL, SLS Group "DeciMamba: Exploring the Length Extrapolation Potential of Mamba" December 2024
- MIT CSAIL, Scale ML Seminar "DeciMamba: Exploring the Length Extrapolation Potential of Mamba" June 2024
- Northeastern, Prof. Bau's Lab "DeciMamba: Exploring the Length Extrapolation Potential of Mamba" June 2024
- TAD Deep Learning Theory Retreat "Mitigating Open-Vocabulary Caption Hallucinations" April 2024

Research Projects

• Implementing and Improving the DDPG-MP algorithm - Final projects in Deep RL, <u>CRML</u> laboratory, Technion (i) Evaluating a robotic manipulation algorithm (ii) Improving the algorithm using Model-Based methods.

Additional Experience

2021-2023 - Algorithms Engineer at Vayyar

Development of Methods for Antenna Array Calibration:

Model-Based Trace Calibration and Model-Free Online Trace Calibration, Statistical Methods for Leakage Removal, Radiation Pattern Estimation, Created and Teached Vayyar's Array Calibration Course

- 2023-2024 Linear Algebra and Calculus I Tutor at Xtra (Tel-Aviv University)
- 2020 'Signals and Systems' Course Tutor at the Technion
- 2017 and summer of 2018 Software Developer at Insoundz LTD
- 2014-2017 Member of a leading R&D team at Unit 81 The Technological Unit of the Intelligence Branch, IDF
 - o Specialized in R&D in the field of digital communication and reverse engineering
 - Awarded outstanding employee of the Electrical Engineering Department (out of 1000 employees)

<u>Programming and Software knowledge:</u> Python, Matlab, C, C++, Linux and open-source software, such as: Pytorch, Docker, Pybullet, FFMPEG, etc.

Community Involvement

- Mentor in a "Big Brother" program for new EE students at the Technion 2018, 2019, 2020
- Youth Movement Supervisor + Tutor of a child from a low socio-economic background 2013
- Year of Service The Jewish Agency, Greater New-Haven, CT, USA 2012-2013

Languages: Hebrew, English - native tongue level