TERA
Technion-Rambam Initiative in Medical AI

TECHNION
Israel Institute of Technology

RAMBAM
Health Care Campus

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Tech•AI.biomed

Monthly Seminar Series

TERA Monthly Seminar in Medical AI

Wednesday 7.2

Gredinger Hall, Rambam Health Care Campus

14:00 – 14:40: TERA flagship projects

14:40 – 15:00: Refreshments & Networking

15:00 – 15:30: TERA new awarded projects

Shany (Biton) Brimer
PhD candidate

Generalizable and robust deep learning algorithm for atrial fibrillation diagnosis across geography, ages and sexes.

We developed and assessed the generalization performance of a new deep learning model for atrial fibrillation events detection from long term beat-to-beat intervals across geography, ages and sexes. The new recurrent model, denoted ArNet2 was developed on a large retrospective dataset and evaluated on manually annotated test sets from four medical centers. Our findings may have clinical implications on the choice of the preferred atrial fibrillation examination method to use relative to the group of interest.

Leon Budashev
Senior Software Developer

ICU Monitor Data Collection: Techniques and Challenges

Developing tools to track and predict deterioration of critically-ill patients in the intensive care unit (surveillance and clinical decision support including treatment) requires a careful retrieval of the monitor data. In this talk, techniques and challenges to get raw monitors data, translate it, analyze its quality and send it to storing/analyzing utilities will be discussed.

Rom Gutman
PhD Candidate

Causal Machine Learning Framework for Acute Heart Failure Patients Treatment Recommendation

We introduce a framework developed for learning patient-level clinical treatment recommendation models from patient health data. The focus is not on a specific algorithm, but rather on a step-by-step guide for how to perform causal identification, estimation, and validation of patient-level causal effects, integrating many recent methods. Finally, case study in which we applied our framework to the treatment of hospitalized heart failure patients who developed kidney problems will be described.

Einat Borohovich
Senior Data Scientist

Projects Born at the TERA Hackathon!

Bloodstream Infection in Bone Marrow Transplants is a prevalent issue. We aim to identify early BSI predictors using time-based analysis. Our findings highlight key variables directly associated with increased BSI risk.

Birth Weight Prediction We introduce a tailored solution, powered by AI, for birth weight prediction that integrates historical and clinical factors. Notably, our method surpasses the accuracy levels of conventional sonographic estimations.

Click here to confirm your participation (limited places)

The seminar will be delivered in English