

Big Data

in Healthcare | by 8400

The course co-organized by 8400 provides a **comprehensive understanding of Artificial Intelligence** (AI) terminology and data science processes along with some hands-on application in real-world healthcare case studies.

The Big Data in Healthcare course **targets healthcare professionals**, including clinicians, researchers, medical residents, life sciences, and medical students, who aim to implement AI-based solutions in their practice.

The course format will be **conducted in a hybrid model**, including both in-person evening sessions as well as short, pre-recorded learning modules, allowing participants to study anywhere, at their own pace.

The course sessions will be **led by senior clinicians**, researchers, and tech leaders, who will share their vast knowledge and expertise with the class through real-life case studies.

AI and machine learning (ML) have been **revolutionizing the health industry** in the past few years and are projected to grow 44% by 2026. The specific knowledge required to utilize AI and advanced data science technologies in healthcare is currently not sufficiently accessible.

For more information:
edu@8400thn.org

Syllabus			Speakers	Date	Format
Introduction to Big Data analysis in medicine			Dr. Noa Dagan (Clalit) Dr. Erez Naaman (Scopio) Dr. Joachim Behar (Technion)	Nov 3rd, 2024 16:00-19:00	Zoom session
A	How to ask the right question when approaching Big Data?	Approaches to big data in healthcare	Prof. Shay Ben Shachar Dr. Ofer Chen Dr. Itay Pessach Mr. Eran Atlas Dr. Tuvik Beker Dr. Alexis Mitelpunkt Ms. Ayala Neudorfer Dr. Michal Rosen Zvi Dr Daniel Souroujun Mr. Eran Rubens Ms. Hadas Bitran	Self-paced online learning	
		AI in the clinic – when can we use it?			
		How to process medical data?			
Mid-course Session - First Encounter with Data (Data Work Simulation)			Dr. Alexis Mitelpunkt and Mr. Hadas Volkov	Dec 1st, 2024 16:00-18:30	Zoom session
B	Technical aspects of Big Data analysis using AI and ML in medicine	Introduction to Algorithms	Mr. Gilad Harel	Self-paced online learning	
		Introduction to Data Structures			
		From BI to AI – the data analytics evolution in the enterprise	Dr. Elan Sasson		
		Understanding machine learning algorithms - real-world applications of AI for diagnostic purposes			
		EDA (exploratory data analysis) – the case of clinical data sets			
		Interpretability and observability in AI and ML: benefits and challenges			
C	Big Data analysis in real life – R&D and clinical use of models	Dr. Shira Greenfeld Prof. Ran Balicer Prof. Noam Shomron Dr. Michal Rosen Zvi Dr. David Golan Ms. Hadas Bitran Dr. Noa Dagan Prof. Robert Klempfner Dr. Dan Yamin Mr. Itzhar Laufr Dr. Kira Radinsky			
D	AI in Healthcare – Israeli regulatory approach	Dr. Anat Boehm-Cagan and Mr. Ran Milman- Ministry of Health			
Final session: facilitated hands-on application		Group work: implementation of acquired tools on real-life clinical data		Jan 5th, 2025 16:00-19:00	In-person session *Tel Aviv

*Agenda is subject to change

Places are limited | Full attendance in all live meetings, as well as completion of all online modules and assignments is required | Lectures will be given in Hebrew | Deadline for applications is September 30th, 2024 | Participation fee: 720 NIS.

*In-person session's location will be announced to the participants.

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