

# Medical AI & MRI Lab

Open positions in Dr. Efrat Shimron's new research group

Lab website: [www.efratshimron.com](http://www.efratshimron.com)



Dr. Efrat Shimron

מעבדת שמרון מחפשת סטודנטיות וסטודנטים מצטיינות בעליזת רקע חזק בעיבוד אות ותמונה ולמידת מכונה, הרוצות לבצע מחקר בתחום הדמיה רפואית!

Hi! I'm a new faculty member at the Technion, in the Electrical and Computer Engineering (ECE) and Biomedical Engineering (BME) Faculties (dual affiliation).

I'm looking for **excellent students** interested in **M.Sc. / Ph.D. / postdoc** studies

There are also some spots for undergraduate (4<sup>th</sup> year) projects.

Our research focuses on developing techniques for MRI techniques:

- **Machine learning computer-vision algorithms for fast, motion-robust MRI**
  - New theory & algorithms for solving inverse problems – image reconstruction from sub-sampled data
  - Enhancing image quality in low-field (low-SNR) MRI
  - Real-time motion correction
  - Sampling strategies design
- **AI for personalized healthcare** – brain development & aging
- **3D-printing of realistic phantoms**

Desired background/skills:

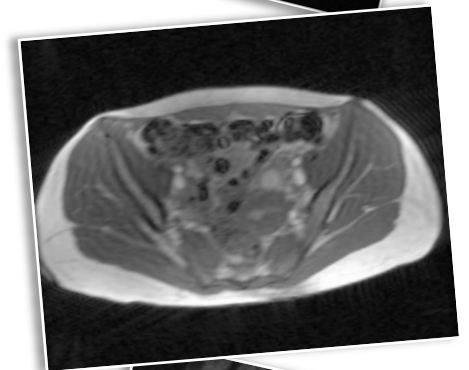
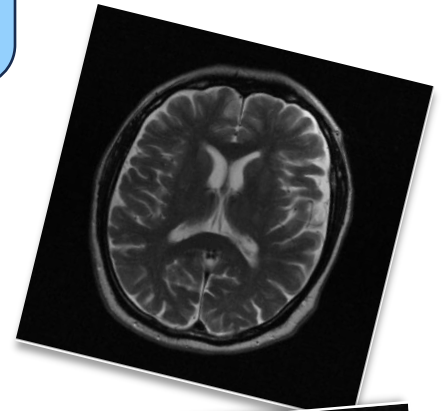
- Excellent analytical skills & interest in solving challenging problems
- Courses - signal and image processing, introduction to DSP ("Mavlas"), computer vision, machine learning
- Hands-on experience with coding in Python (e.g. PyTorch)
- Hands-on experience in 3D printing

## Interested?

Please send me an email - Efrat Shimron - [efrat.s@technion.ac.il](mailto:efrat.s@technion.ac.il)

Please include the following:

- Your CV
- Your grades transcript
- Some text about your experience in computer vision / machine learning / biomedical imaging etc., and your research aims.



**Portable MRI – coming soon to our lab!**



**The Technion's MRI center**

