

Itzik Avital

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Experience:

7.2019 - Today: Computer Vision and Deep Learning Team Leader at VayaVision.

10.2017 - 7.2019: Computer Vision and Deep Learning Algorithm Developer at VayaVision.

- Deep Learning based and classic computer vision methods for 360 3D perception using a LiDAR, radars and cameras. Mainly, developing sensor fusion methods for 3D object detection and tracking.

10.2015 - 10.2017: Algorithm Developer at Image Processing Lab in Sheba Medical Center (Thesis).

- Improving an existing algorithm and assimilating it into a working framework in Matlab.
- Research in brain MRI field: comparing different DNN approaches for automating ROI segmentation.
- Implementing 3D Multi-Modal FCN for ROI segmentation task in TensorFlow.

10.2016 - 10.2017: Teaching assistant at Tel Aviv University in Image Processing and Computer Vision courses.

8.2014 - 10.2016: Logic designer at Intel Yakum in PCC group.

3.2014 - 8.2014: Test writer in Fault Grading team at Intel Yakum in PCC group.

Education:

2015 - 2017: M.Sc. in Electrical Engineering at Tel Aviv University, specialization in Image Processing and Computer Vision.

Thesis Topic: 3D Fully Convolutional Network for Automatic Segmentation of Volumetric ROIs for Tractography, under the supervision of *Prof. Nahum Kiryati* and Dr. Arnaldo Mayer.

Publications:

- I. Avital, I. Nelkenbaum, G. Tsarfaty, E. Konen, N. Kiryati and A. Mayer, "Neural Segmentation of Seeding ROIs (sROIs) for Pre-Surgical Brain Tractography," in IEEE Transactions on Medical Imaging, vol. 39, no. 5, pp. 1655-1667, May 2020, doi: 10.1109/TMI.2019.2954477.

Patents:

- Provisional Patent Application (USPTO): 62/613,073

2012 - 2016: B.Sc. in Electrical Engineering at Tel Aviv University.

Specialization: Signal Processing, Communications and Computer Science.

Military Service:

2006-2009: Combat soldier in Duvdevan.

Skills:

- Deep Learning (TensorFlow, Pytorch, TensorRT)
- C/C++
- Python

- MATLAB
- Linux/Unix environment