



NEW

Super-Resolution Fluorescence Microscopy using Deep Learning

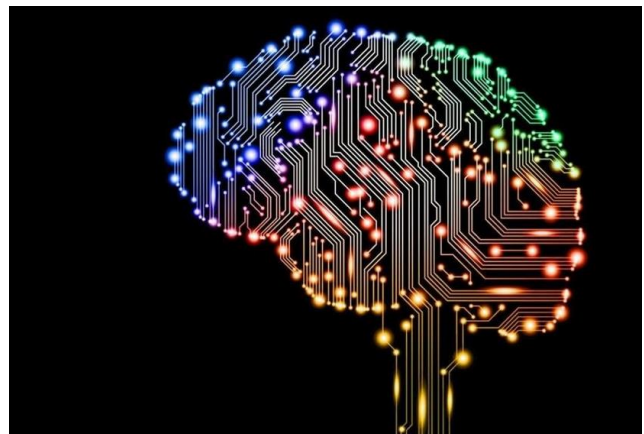
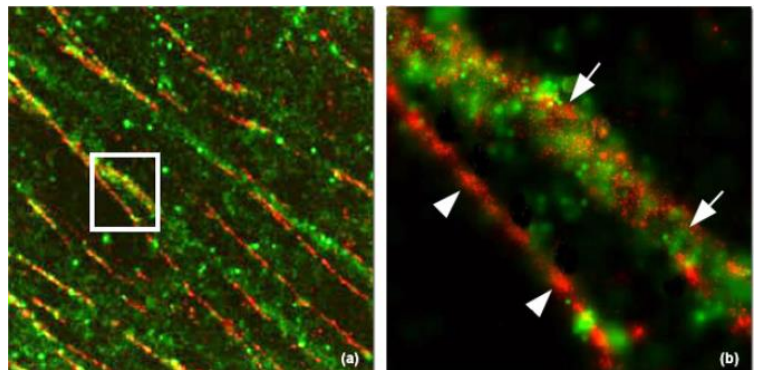
Supervisor: Oren Solomon

Project description:

Super resolution fluorescence microscopy techniques are an ensemble of light-microscopy techniques which achieve spatial resolution beyond the limitations imposed by the diffraction of light. However, these techniques are currently limited by low temporal resolution and long acquisition times.

In this project, we will investigate an exciting new direction which will combine **Deep Learning** of both low and high resolution images, to improve both its temporal and spatial resolution.

The students will get a hands on experience with a research project, combining disciplines in fluorescence microscopy, machine learning and optimization techniques.



Required background: Signal and systems, Mavlas, Mavla.

Environment: Matlab.

For further details, please contact Oren: orensol@campus