Cancer Detection Project

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Background:
Neuroimaging incorporates techniques to analyze the images of nervous system images to determine abnormalities, such as tumors. Specifically, structural imaging is the area in which large-scale physical degradations and issues are analyzed within a physiological context. However, current medicinal technology cannot provide multivariate imaging analyses to determine the possibility of cancerous cells.

But modern information technology has reached the stage such that medicine can be complemented by its inclusion. For example, convolutional neural networks (CNN) in parallel systems can "scan" thousands of images of neural cortices to identify possible tumor afflicted region(s). Along with optimization tuners, these CNNs can provide the perfect platforms for detection procedures in the future.

Keywords: neuroimaging, structural imaging, convolutional neural networks, optimization

Project Description:
Using CNNs accompanied with optimization tuners to calculate the percentage chance of tumor affliction.

References:
1. Leksell, L, D Leksell, and J Schwebel. "Stereotaxis and Nuclear Magnetic Resonance." *Journal of Neurology, Neurosurgery, and Psychiatry* 48.1 (1985): 14–18. Print.