

MODELING AN AUTOMATIC DIAGNOSIS OF MALARIA BASED ON DIGITAL HOLOGRAPHIC MICROSCOPY

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ABSTRACT

Nowadays, digital holographic microscopy is presented as an alternative to conventional microscope. A digital holographic microscopy can allow a laboratory diagnosis of malaria in a virtual slide of unstained patient's blood sample. The objective of this work is to exhibit the strength of object-oriented and agent technologies in handling the automated diagnosis of malaria based on digital holography microscope. Concerning by providing a most accurate and practical malaria diagnostics, and to ensure its effectiveness and sustainability, we proposed a methodology of specifying automation of malaria laboratory diagnosis based virtual slide, and specifically a framework of Semi-Supervised Machine Learning. The framework proposed provides abstraction of activities that allows easy implementation of SSML system. As presented in the figure bellow, it is design following the object-oriented methodology and the software agent technique.

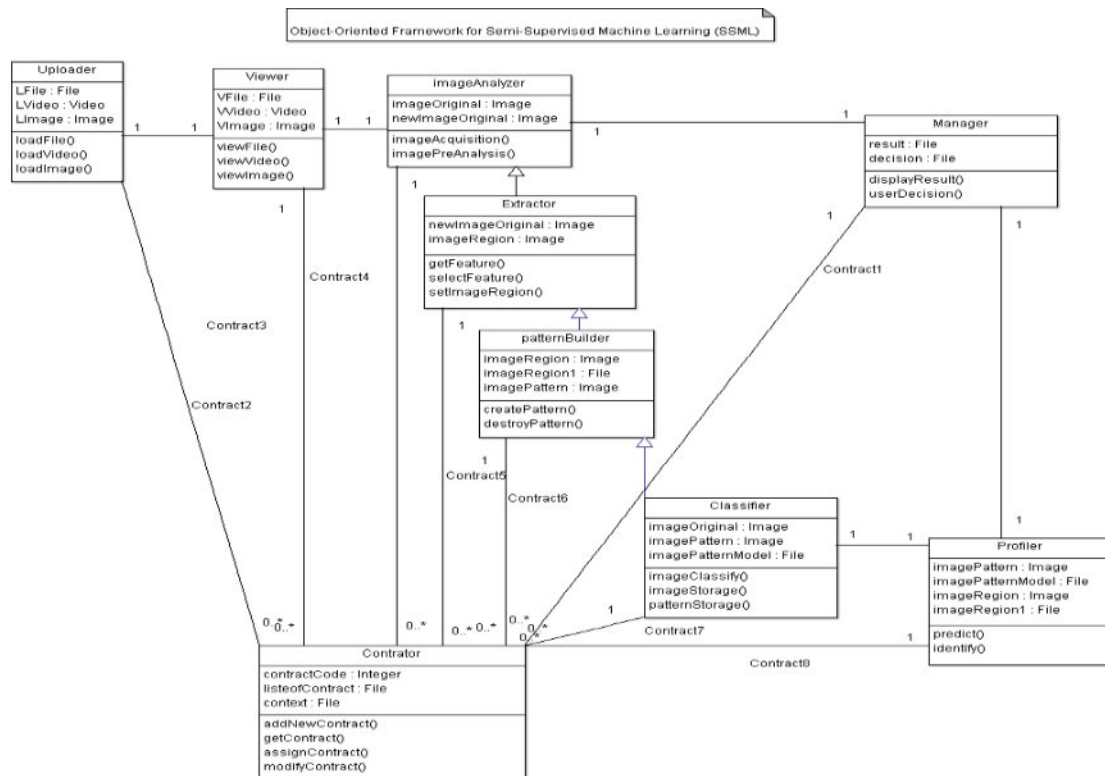


Figure of Semi-Supervised Machine Learning (SSML)