Diagnosis of Alzheimer Disease Through an Artificial Neural Network Based System

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Abstract. Alzheimer's Disease (AD) is referred to as one of the most common causes of dementia, which in itself justifies the interest and investment that is made in order to find new biomarkers to identify the disease in its early stages. Indeed, focusing on the hippocampus as a marker for AD, it would be object of analyse different methods of volume measurement and hippocampus segmentation. On the other hand, the computational framework is built on top of a Logic Programming approach to Knowledge Representation and Reasoning, complemented with a computational framework base on Artificial Neural Networks that grip on incomplete, unknown, and even self-contradictory information or knowledge.

Keywords: Alzheimer disease · Biomarker · Hippocampus · Logic programming · Medical imaging · Intelligent systems

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