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Relational Attention Shift on Images Using Bu-Td Architecture and Sequential Structure Revealing

Authors : Alona Faktor

Abstract : In this work, we present a NN-based computational model that can perform attention shifts according to high-level instruction. The instruction specifies the type of attentional shift using explicit geometrical relation. The instruction also can be of cognitive nature, specifying more complex human-human interaction or human-object interaction, or object-object interaction. Applying this approach sequentially allows obtaining a structural description of an image. A novel data-set of interacting humans and objects is constructed using a computer graphics engine. Using this data, we perform systematic research of relational segmentation shifts.

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