Scanpath Visualization According to Fixations with Gazed Objects

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Summary:

Fixation and saccade are eye movement events used in gaze analysis. Eye movement events provide a focused position of the observer's attention in a visual stimulus. The area where the attention is concentrated is called AoIs (Area of Interests) and contains semantical information. However, the semantics of AoIs is focused on analyzing the attention shift between AoIs. In addition, since the conventional fixation and saccade identification algorithms rely on raw eye movement data, fixation is usually located at a position independent of the visual stimulus. In this paper, we propose the fixation identification algorithm based on the segmented object and velocity-threshold. We determine the gaze target object with the segmented object and the foveal area range. Our algorithm utilizes the target object and velocity-threshold for fixation identification and positioning.

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