Automatic 3D Avatar Generation from a Single RBG Frontal Image

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We present a complete automatic system to obtain a realistic 3D avatar reconstruction of a person using only a frontal RGB image. Our proposed workflow first determines the pose, shape and semantic information from the input image. All this information is processed to create the skeleton and the 3D skinned textured mesh that forms the final avatar. We use a specific head reconstruction method to correctly match our final mesh to a realistic avatar. Our pipeline focuses on three main aspects: automation of the process, identification of the person, and usability of the avatar.

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