

Digital 3D Character Design with Milo

By Ashton Pages



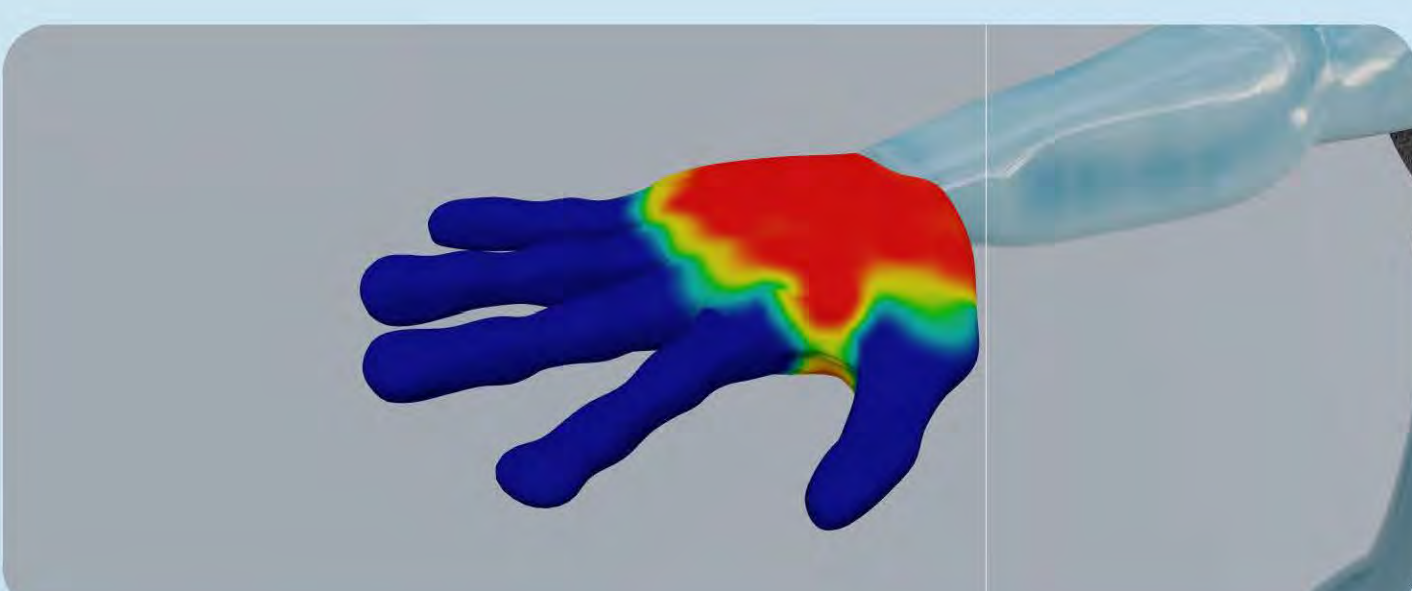
- **Modeling and Sculpting** – At the start of the process, a completed design needs to be constructed in a digital 3D environment. A digital artist, in this case myself, inserts simple shapes and edits them into a rough, blocked out version of the completed design. Then details are sculpted in, as if the model were clay.



- **Texturing** – Once a model's shape is completed, adding color and texture is what brings the design to life! The model is "Unwrapped", or flattened, and imported into a secondary software such as Adobe Substance Painter. There, a texture can be painted on, and reintegrated with the 3D model.



- **Rigging** – When putting a 3D design to use in an animation, it isn't the model itself that is moved directly. Instead, the model is puppeted by "Bones", in order to make it move. This means that a full set of working, moving bones must be created that aligns with the model's structure. D



- **Weight Painting** – Weight Painting is an efficient method of telling a 3D software which part of a model should be puppeted by which bone. When this step is done, you're ready to animate!

PROJECT OVERVIEW

The presented work serves as a case study for how early learning goals can be accomplished and interconnected with the industry as a whole. The work consists of a 58 second animation, which was created utilizing the full extent of the industry pipeline. This includes two-dimensional concept creation, storyboarding, 3D modeling, texturing, rigging, and animation. The execution of this project led the initial character concept drawings to be modeled in three dimensions using Blender, before being textured and brought to life in Adobe Substance Painter. The completed character, after being designed, modeled, sculpted, fine-tuned, and textured, could then move into the animation phase. The completed and textured model was returned to blender, where the lengthy process of building a rig, which can move akin to a realistic person, and attaching the character model to that rig was done. Only after all of this was accomplished could the process of animation truly begin, using a drawn storyboard created for reference. Similar to two-dimensional animation, major key poses were first identified before the connecting details were filled in. All of this led to the creation of a final product which showed off all of the skills acquired to make it happen.

Artist's Statement

The overarching goal behind this work was to research and learn each of these skills as the project progressed. This established a foundation already rooted in industry practice that could be expanded upon.. Skills such as Concept Art and Character Design, which were major focuses behind this work, have abundant examples as any professional creative project requires a concrete designing stage. However, learning progressed far beyond the initial research stages and well into the work's execution, as it was often important to problem solve and explore the medium to find the best path towards a goal. The level of exploration and discovery required to make this work a reality were ultimately the true point of the animation, and with any luck can serve as an inspiration for those hoping to follow a similar path.

