

Final Report
Professional Development Grant
For
Maya Character Creation Workshop

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Creative Statement

The professional development grant funds I was awarded in Spring 2016 enabled me to attend a workshop presented by the Digital Media Academy which takes place yearly on campus at Stanford University in Palo Alto, CA. The workshop, entitled Maya Character Creation, allowed me to continue my education in the areas of 3D modeling and animation. My goal in learning these tools is to help support the new Game and Interactive Media program here at ATU. I had previously attended an introductory workshop by Future Media Concepts which gave me a broad introduction to the world of 3D modeling and animation. The Digital Media Academy workshop was of particular interest given its focus on developing 3D models from scratch.

Review of Creative Activity

The workshop took place over the course of 5 days from roughly 9 am to 4 pm each day. During that time we were introduced to all the primary tools used in manipulating 3D primitive form. For example, we might begin with a cube and then through a series of extrusions, edge loop additions, deformation, etc., the resulting structure might resemble a human face. We also covered texturing through the Hypershade window which allows an artist to export an unwrapped map of the subject and then paint it in Photoshop. The texture is then reapplied to the object in Maya. These were the primary areas of investigation although the instructor also briefly touched on rigging and animation.

Creative Activity Summary

The workshop was extremely beneficial in expanding my knowledge and experience of 3D modeling. After refreshing my knowledge of the tools and interface, I was able to practice several techniques for creating complex forms and textures in Maya. Around the middle of the week, I decided to create a model of a complex mechanical form. I decided to model a screw which presented certain challenges due to the helix pattern of the threading. Using a visual reference and the tools and guidance provided in the workshop, I was able to successfully execute the model as well as export a clean UV map for texturing. Examples of this work can be seen below. Since this workshop, I have continued to expand my skill set through textbooks and video lessons found online.

Another benefit of this experience was the opportunity to ask questions of a professional modeler and animator with industry experience. I asked advice on the best way to structure assignments and what types of concerns students should keep in mind when modeling for game design as opposed to film. The information was enlightening and will definitely come into play should I end up teaching this material. The further development of these skills has allowed me to become proficient with the department's new motion capture system. I have successfully captured a motion take and applied it to a rigged model, all due to my experience in this software.

With the addition of the Game and Interactive Media program, the Department of Art is experiencing significant growth in our student population as well as a demand for increased faculty. We have two recent hires in the Game area who cover the courses on game development and 3D modeling and animation. If we continue to see growth in the Game program, the skills I have acquired will be

beneficial in support of the program through teaching some of these courses such as 3D Digital Foundations.

Conclusions and Recommendations

Digital Media Academy's Maya Character Creation workshop is a fantastic experience for anyone seeking to learn more about the 3D modeling process using Autodesk Maya. It greatly expanded my existing knowledge of the program and I am appreciative I had the opportunity to learn such complex and dynamic software in a great educational setting.

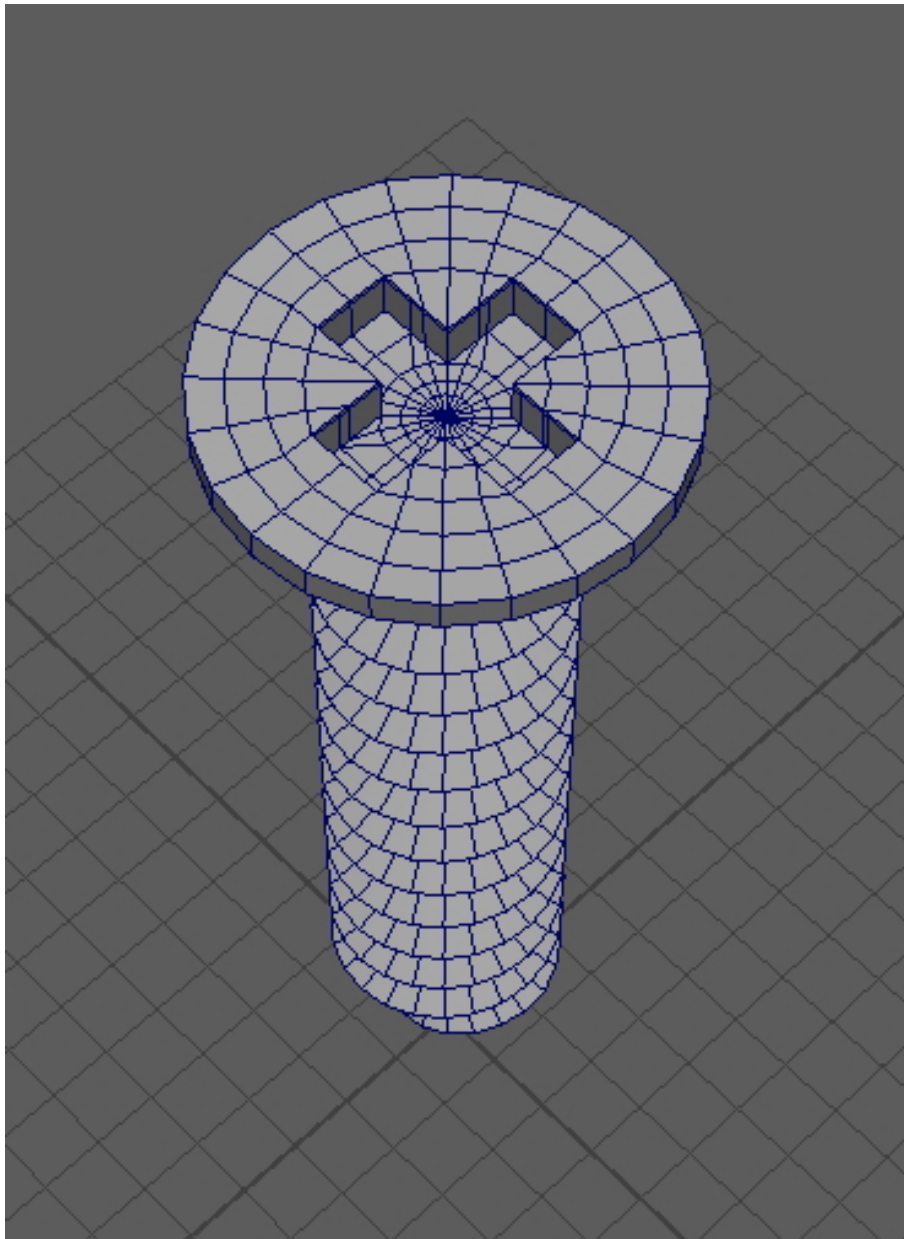


Fig. 1 – 3D Modeled Screw, Top View

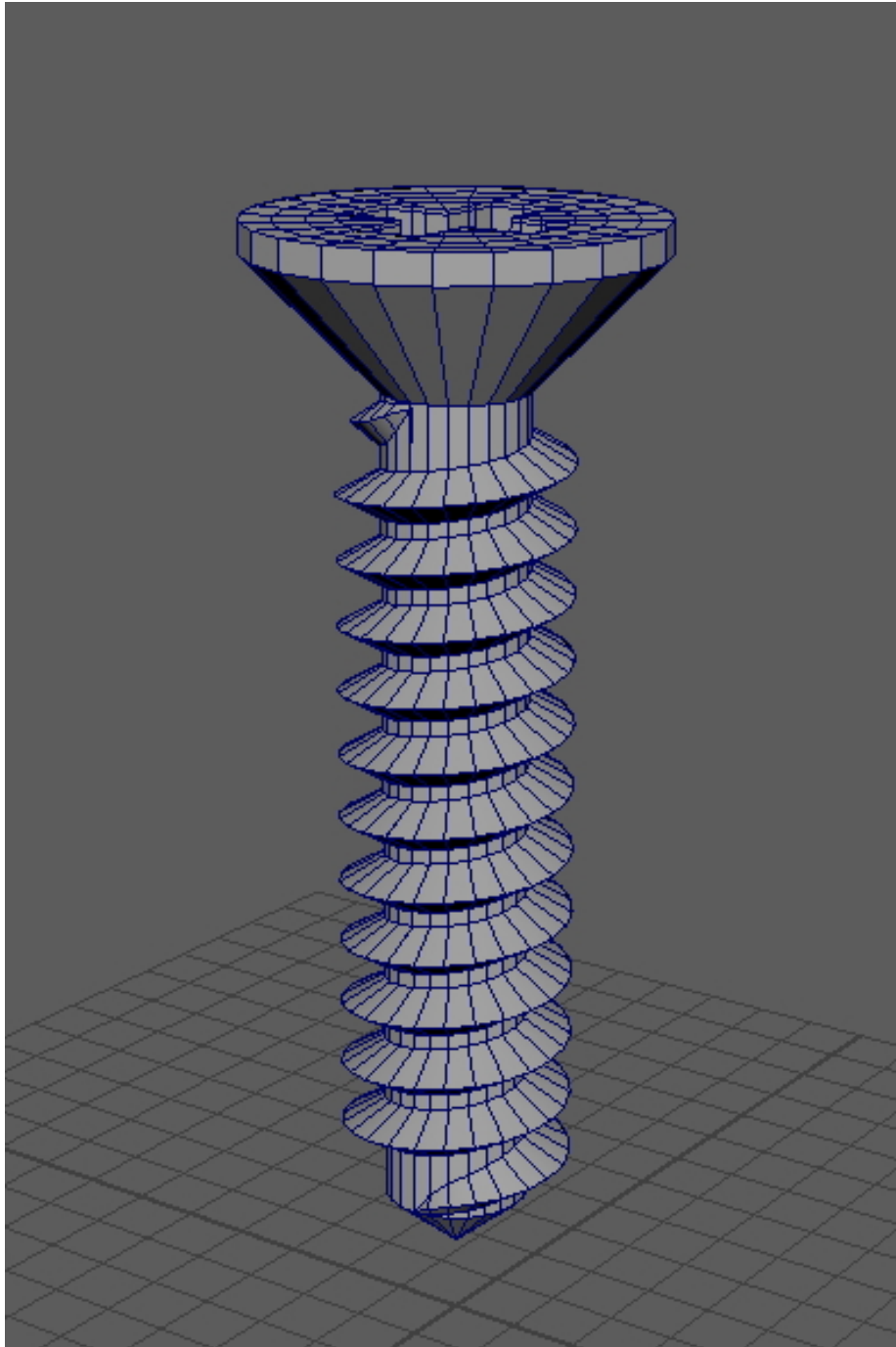


Fig. 2 – 3D Modeled Screw, Side View

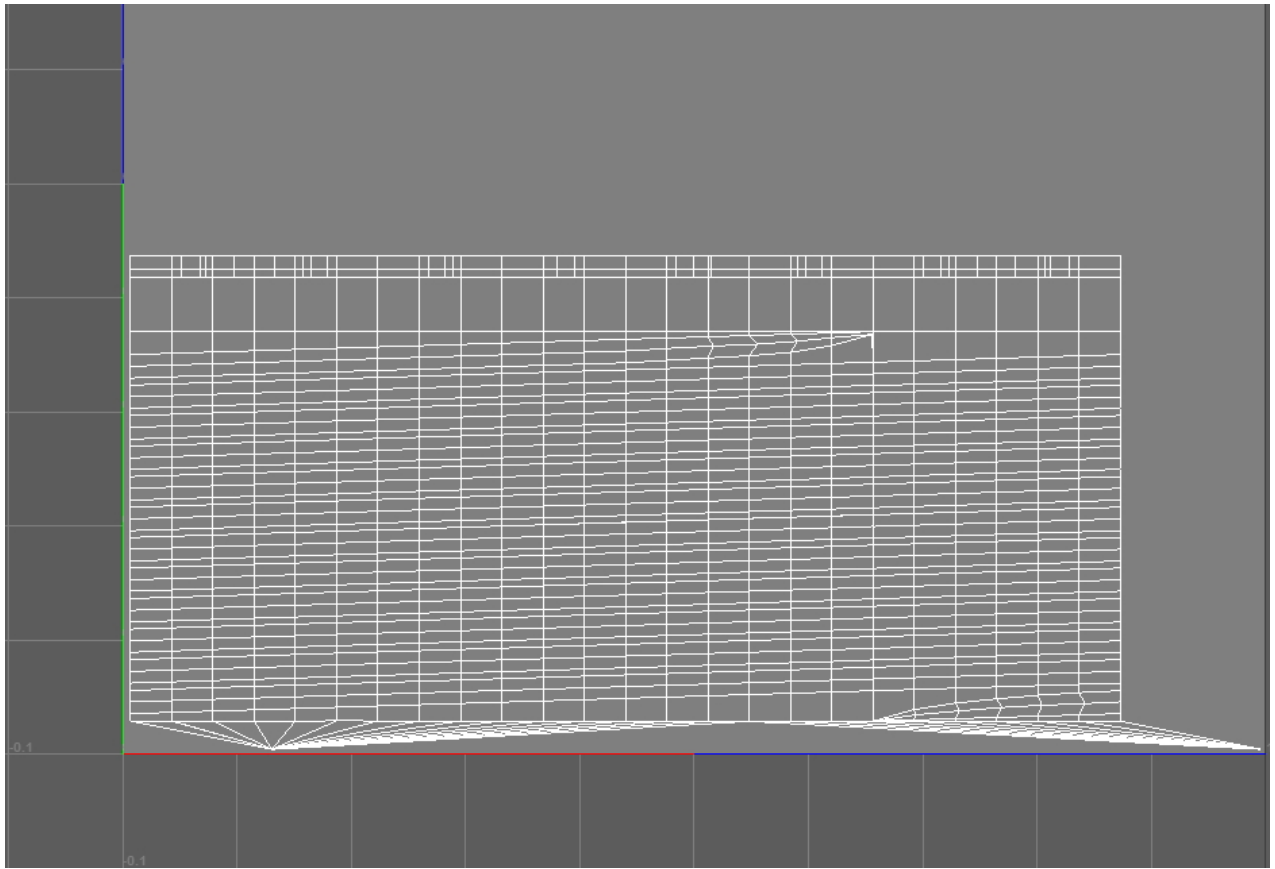


Fig. 3 – 3D Modeled Screw, Exported UV Map