

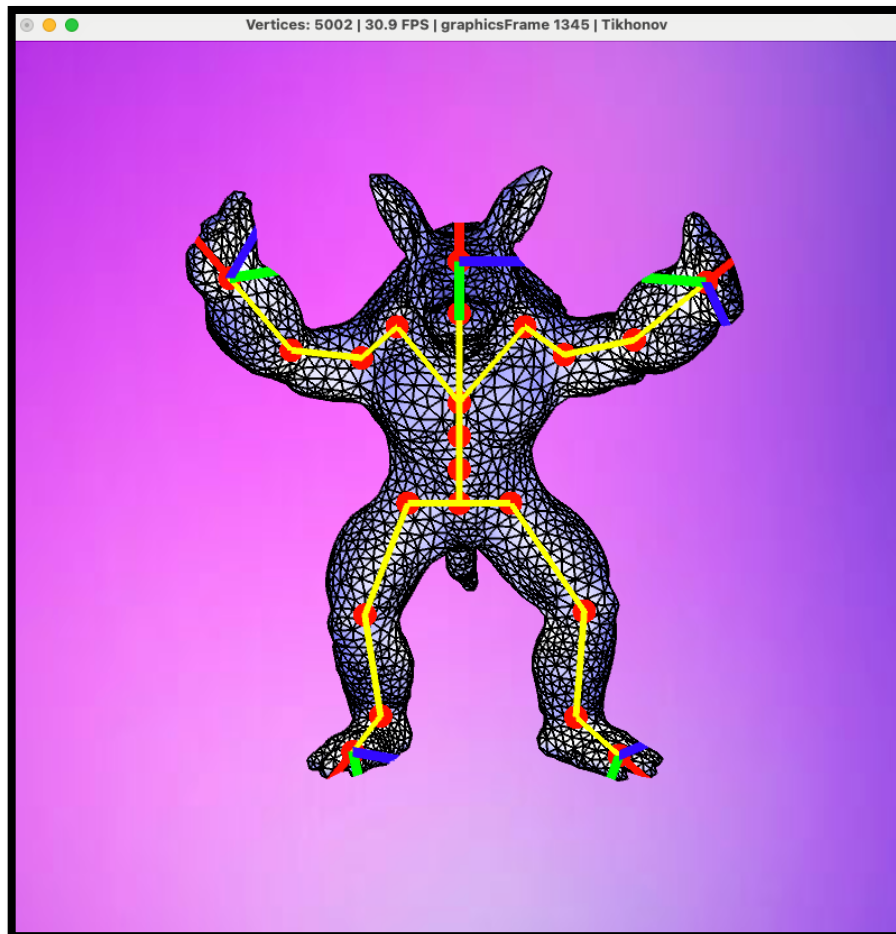
## Assignment 3 – Report

### Core requirements – All Completed

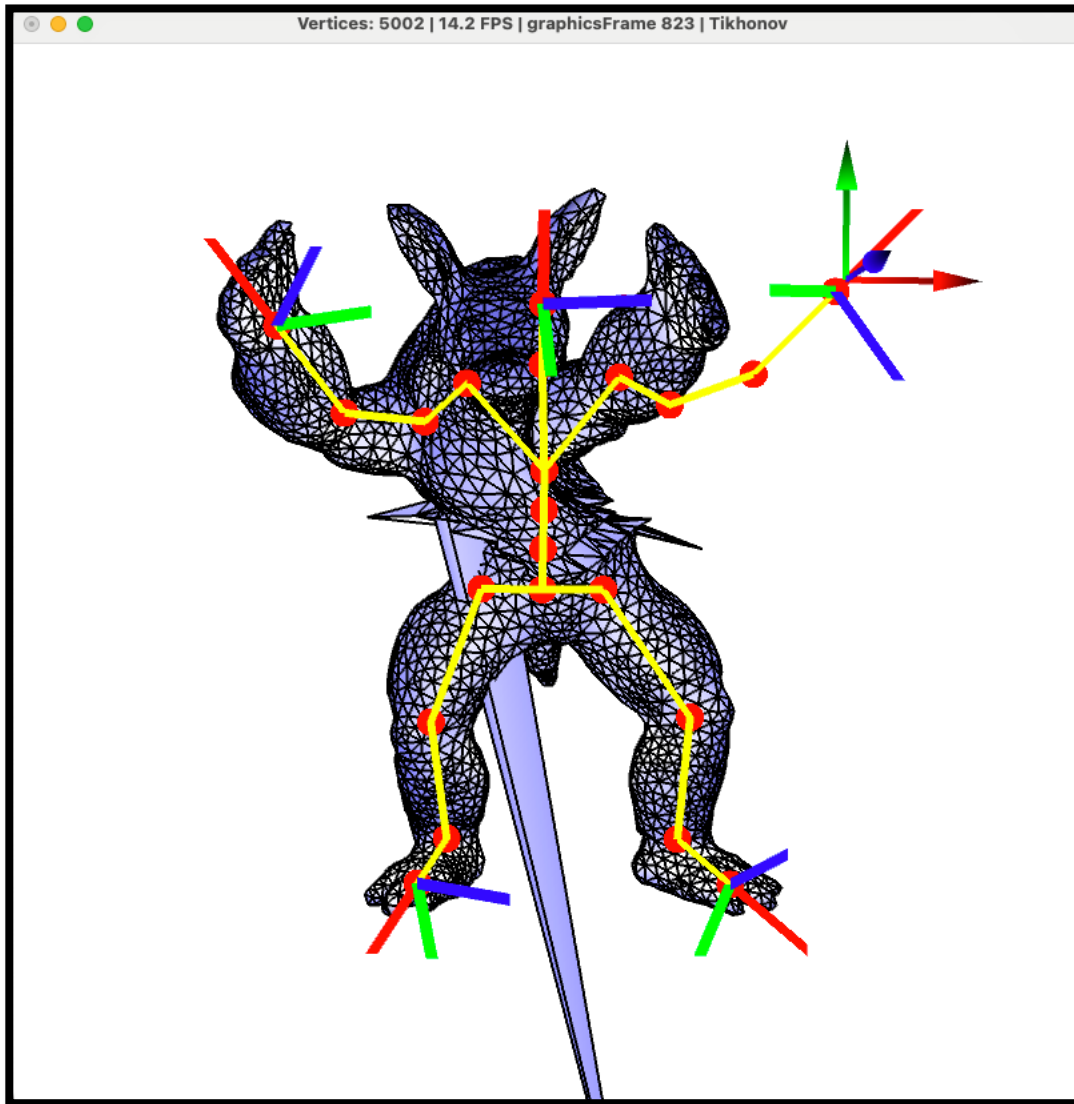
- Skinning (Linear Blend Skinning)
- Forward Kinematics
- Inverse Kinematics (Tikhonov regularization)

### Extra Credits –

1. Implemented Pseudoinverse IK method
2. Implemented Transpose Jacobian IK method
3. Completed the extra credit - When the user moves the IK handle for a long distance, divide the IK process into several sub-steps to improve the solution, where each sub-step solves the IK problem on a portion of the original distance.
4. Added skybox which can be toggled on and off with 'b'.
5. Changed the color of the rendered models by changing the .mtl files and changed the lighting.
6. Added new IKJoints to some models



I also tried and implementing dual quaternion, but it isn't working properly so I commented it out. However, I would like you to check my implementation for any extra credits if possible.



Note – The animation frames are in image\_jpg folder