

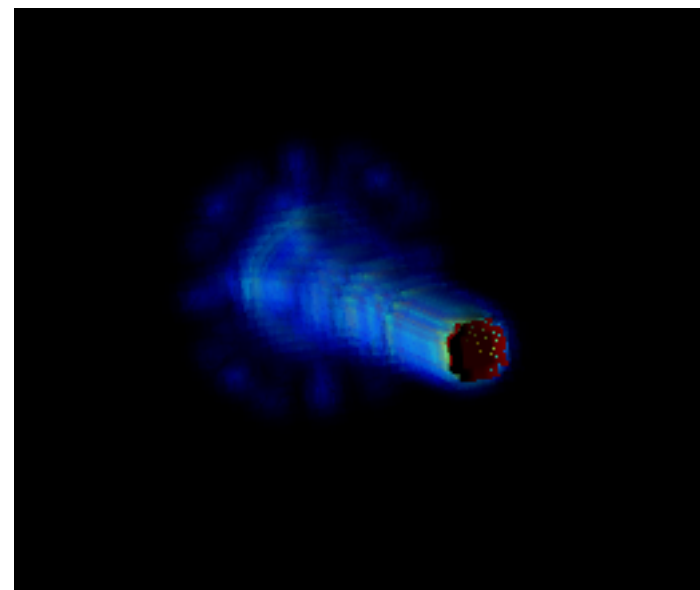
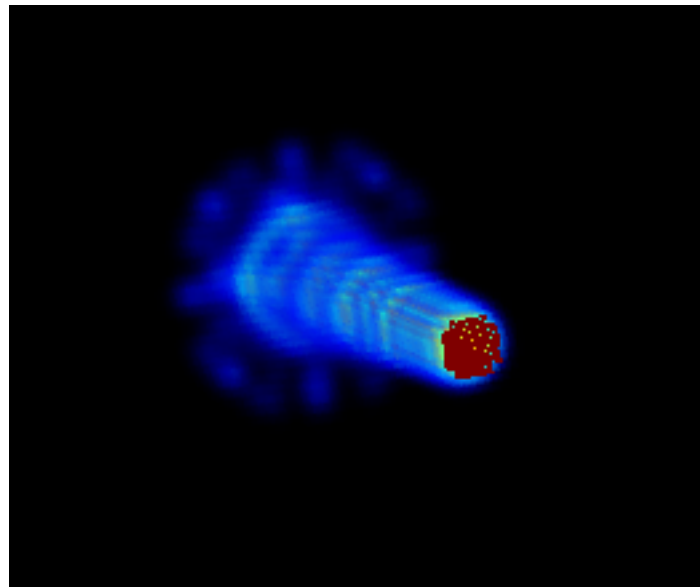
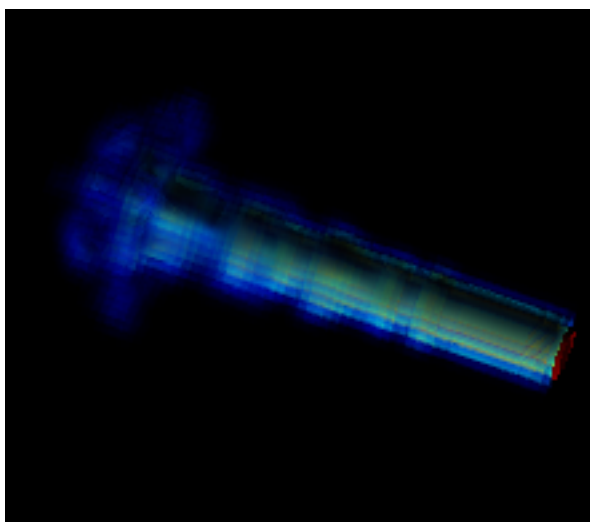
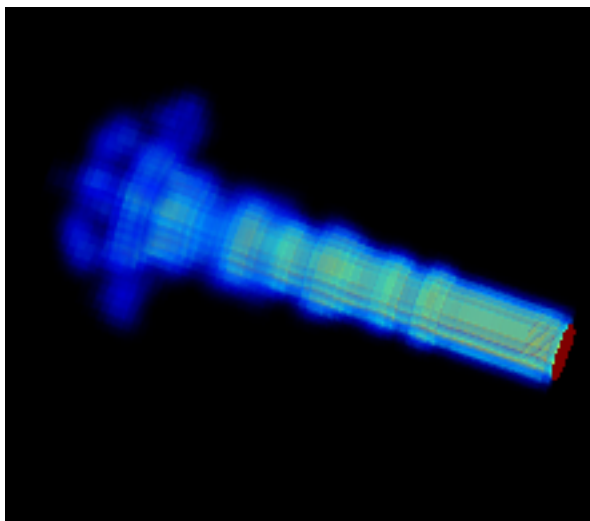
Example Images

Project 1

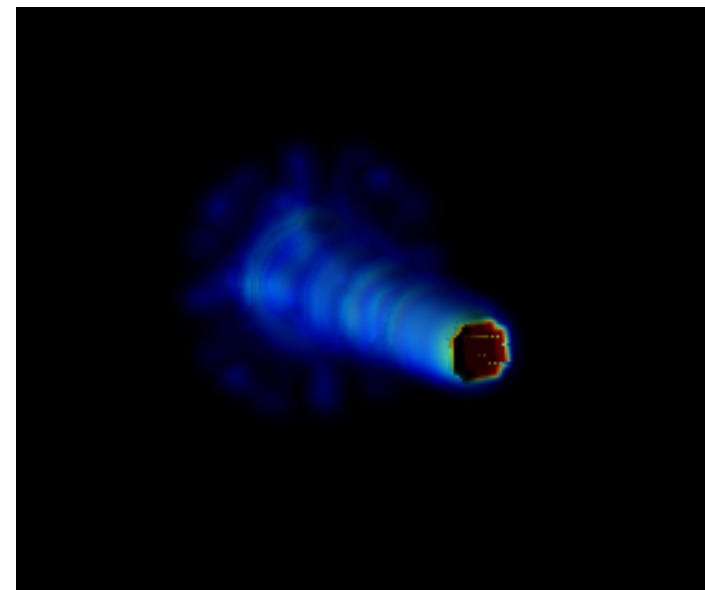
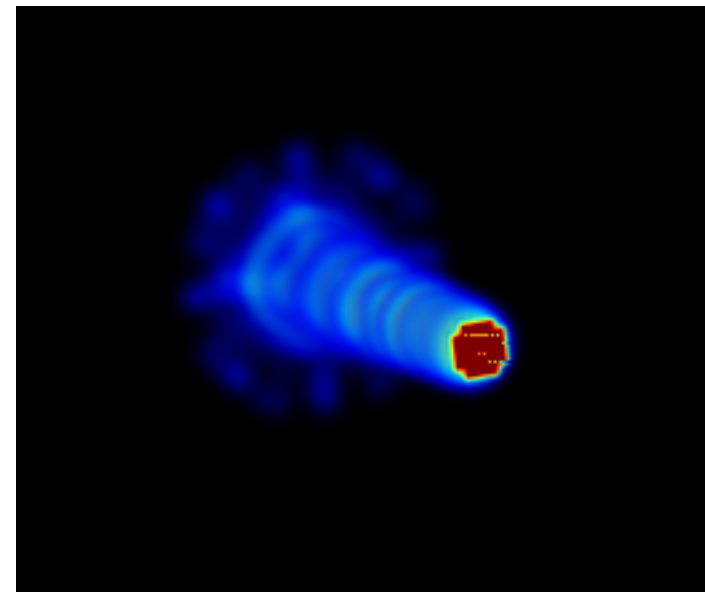
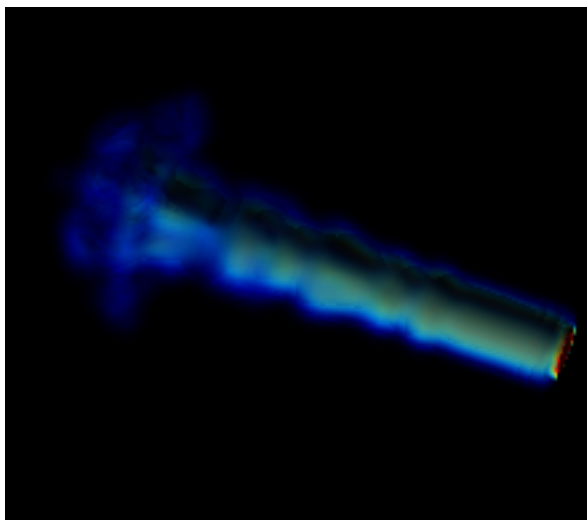
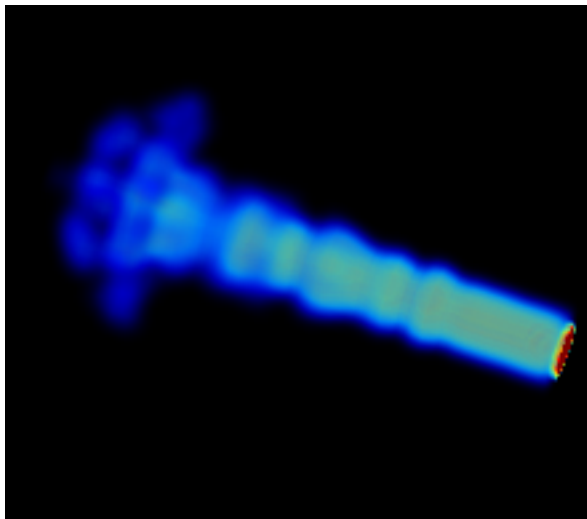
ECS 277

Maheen Rashid

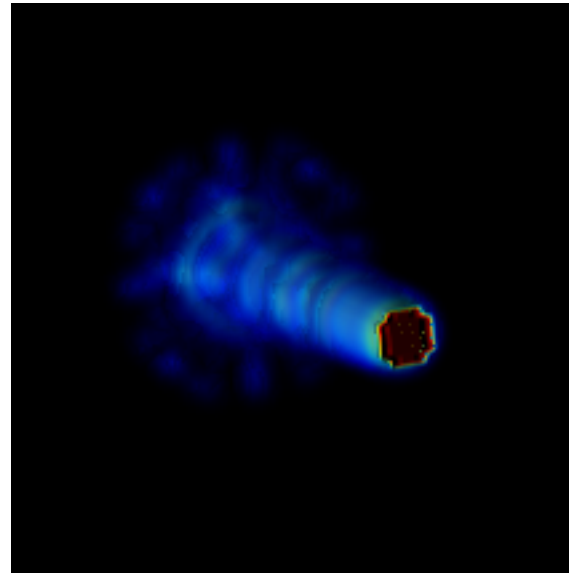
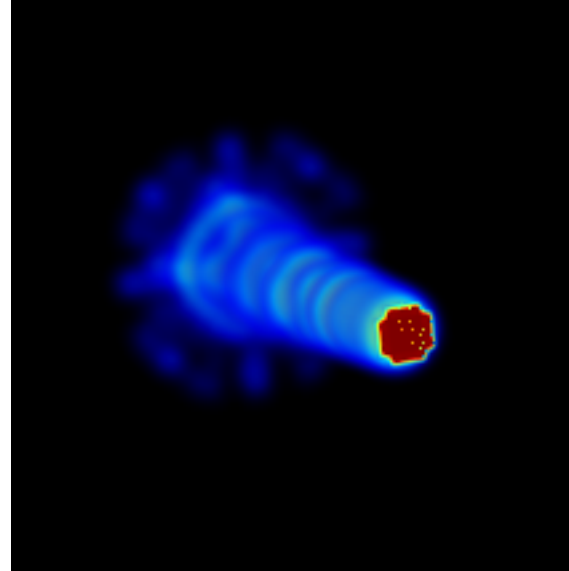
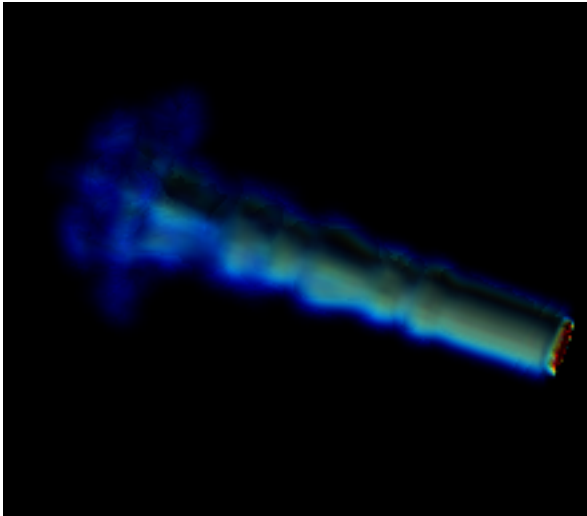
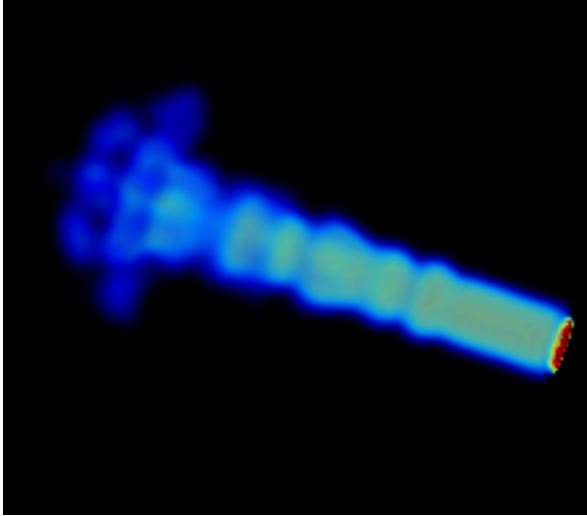
Nearest Neighbor



Trilinear Interpolation

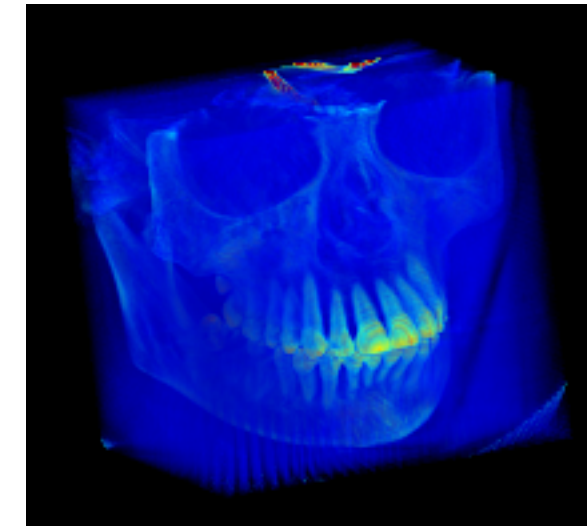
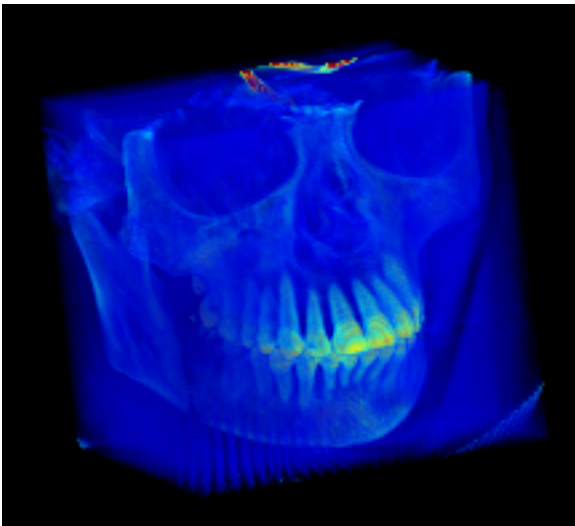
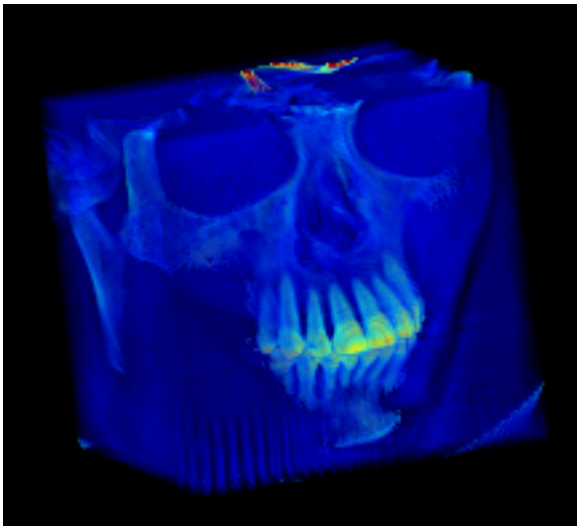
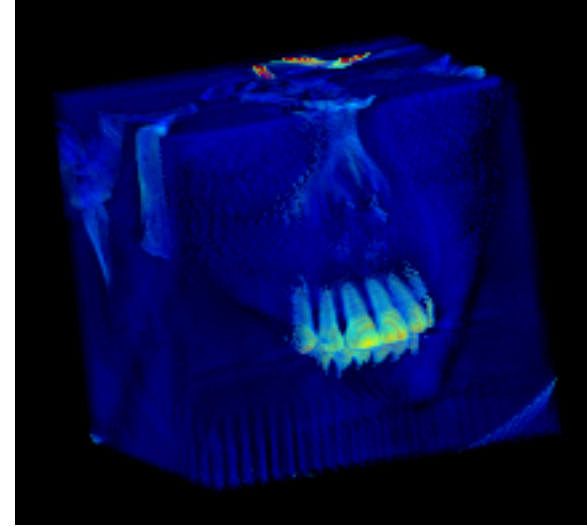
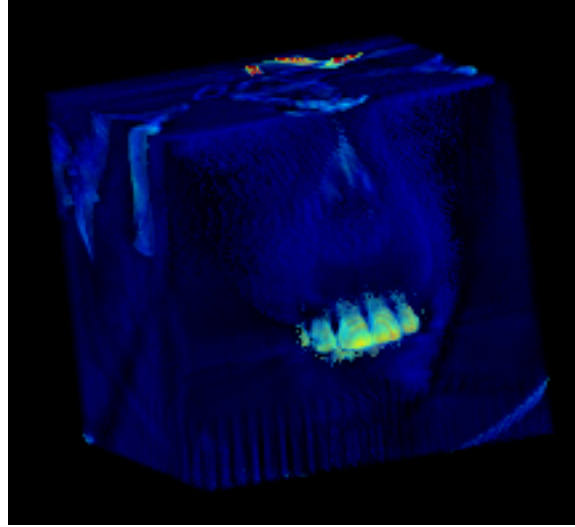
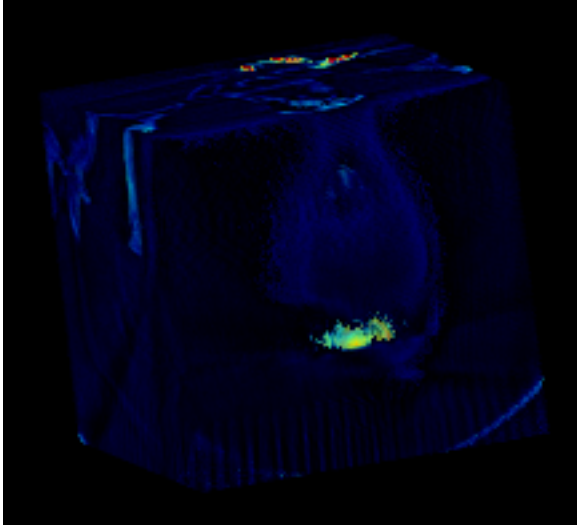


Tricubic Interpolation

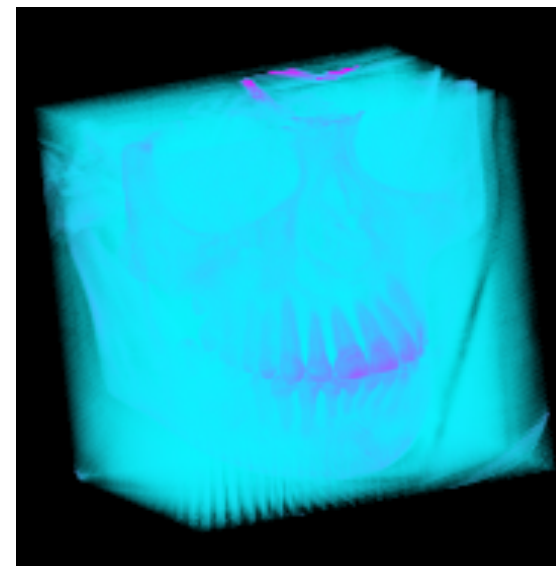
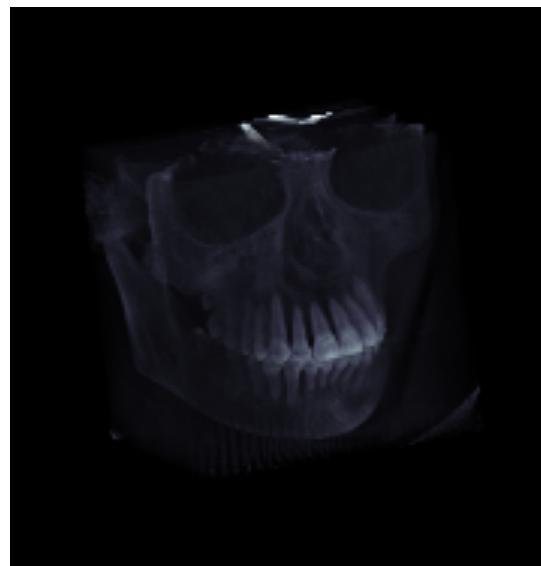
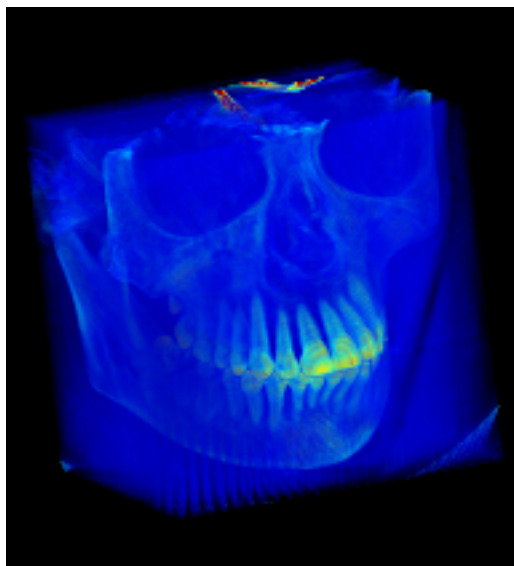


Ray Casting

- Changing number of front to back steps above ISO 0. left to right, top to bottom number of steps 4,9,14,24,49,No threshold.

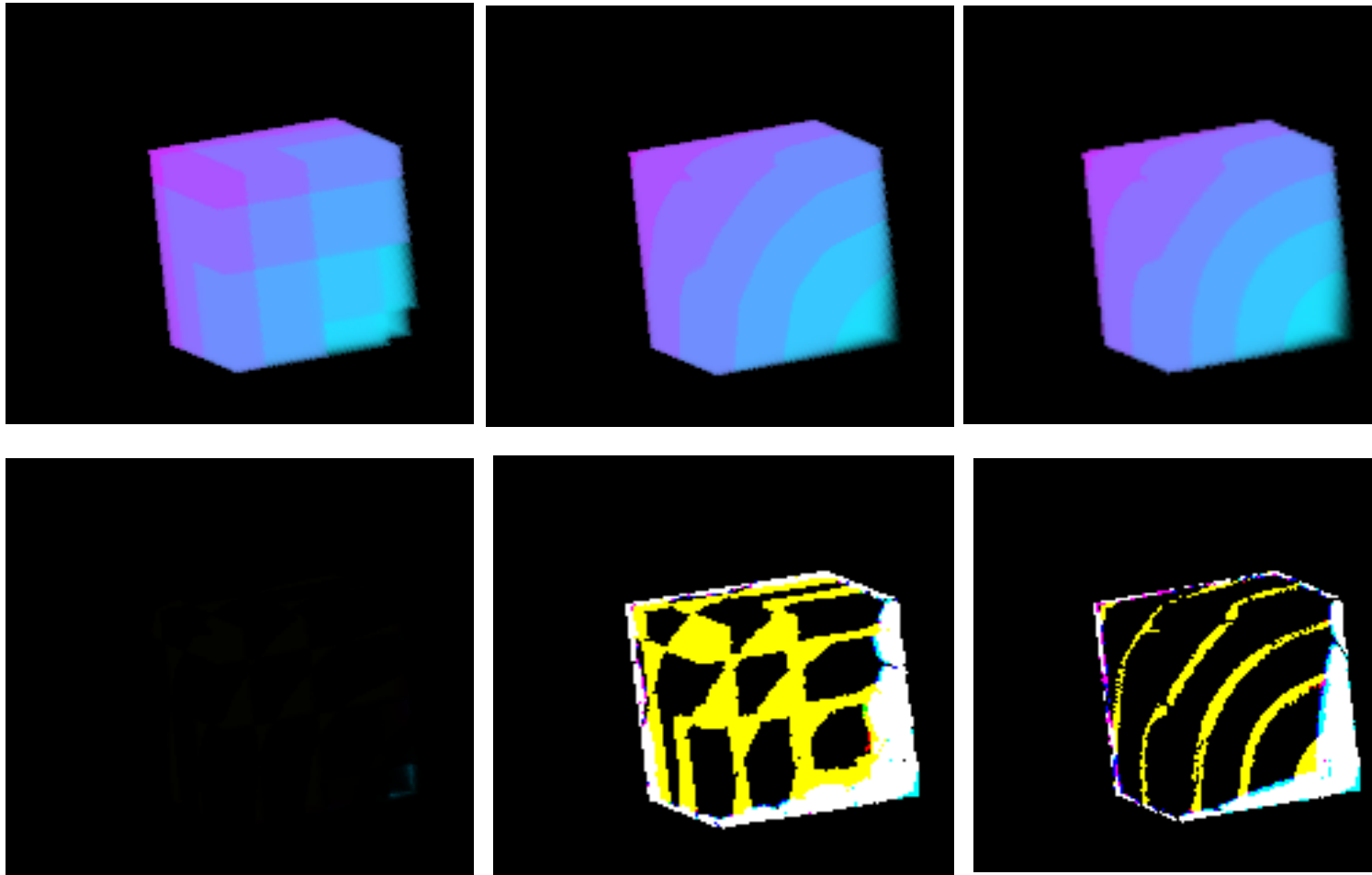


Color Map Changes



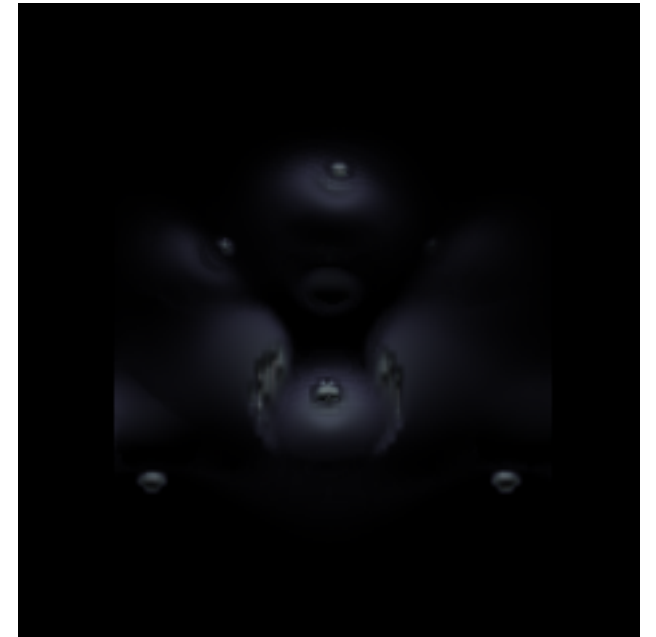
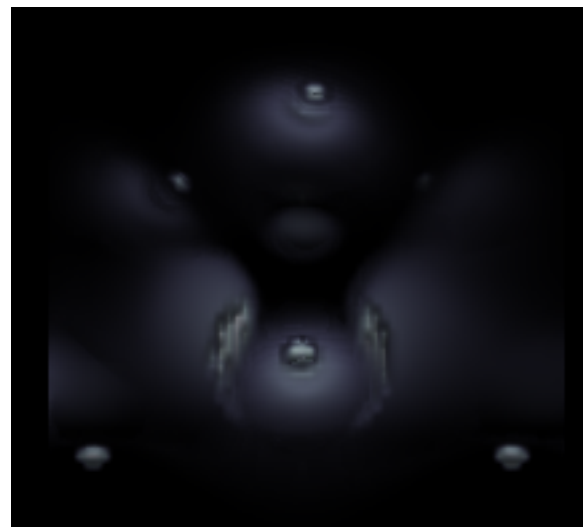
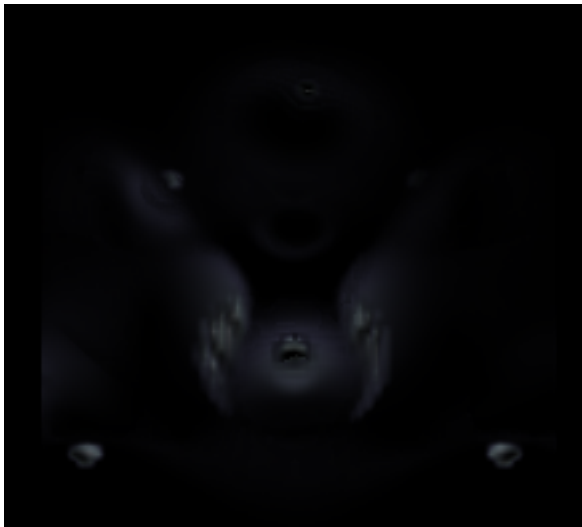
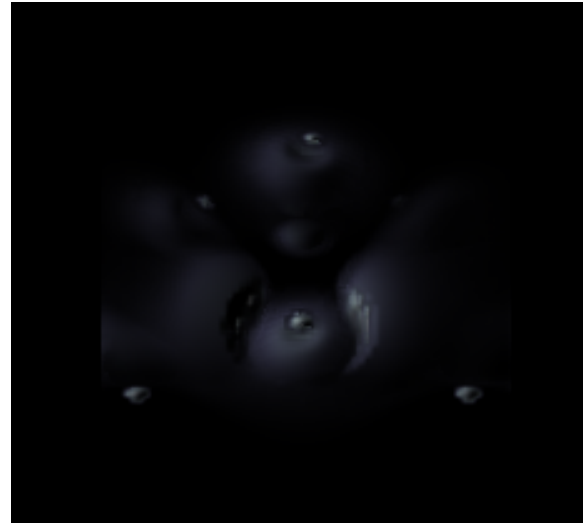
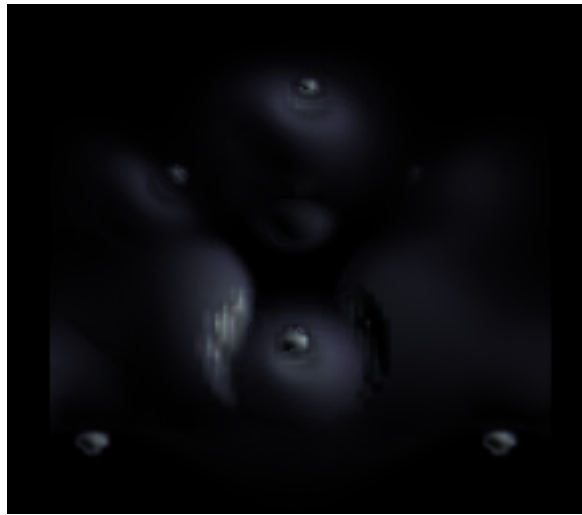
Toy Example

- Left to right. $F(x,y,z) = (x^2+y^2+z^2)^{0.5}$. Sampled at 4x4. Top Row Left to right – Nearest Neighbor, Trilinear, TriCubic. Bottom row, Left to right – Non Thresholded difference map of NN and TL, Thresholded difference map of NN and TL, Thresholded difference map of NN and TC.

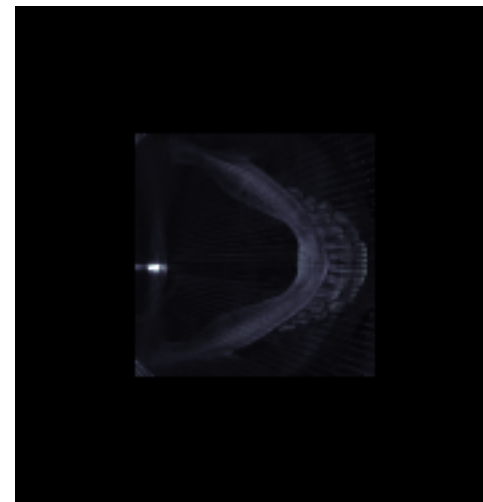
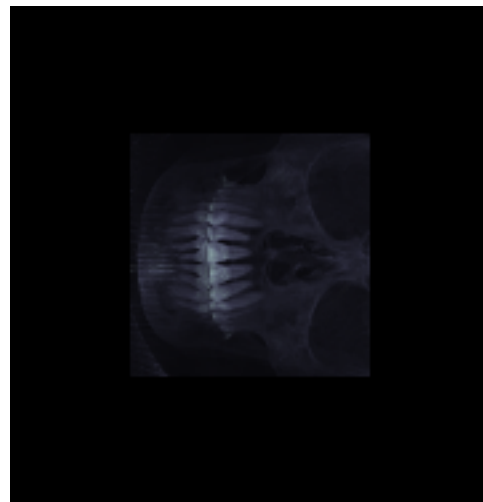
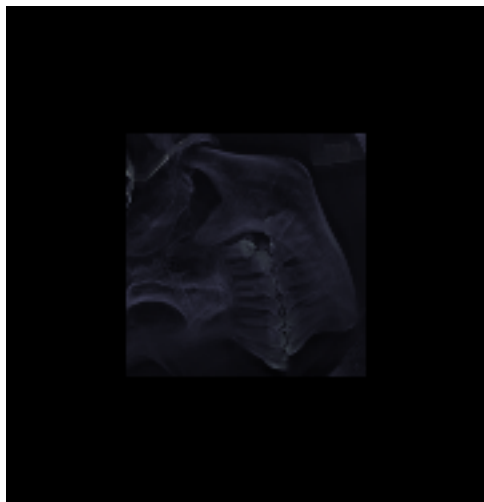
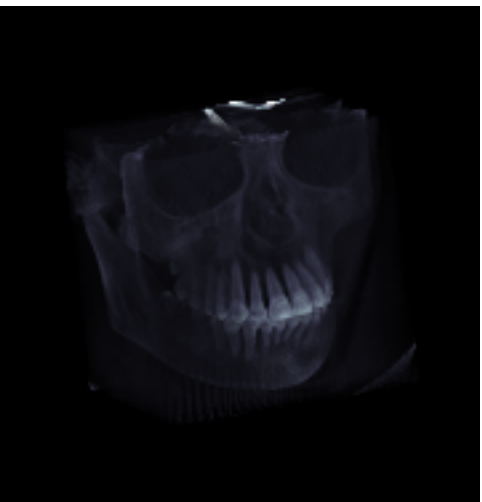


Changing Light Position

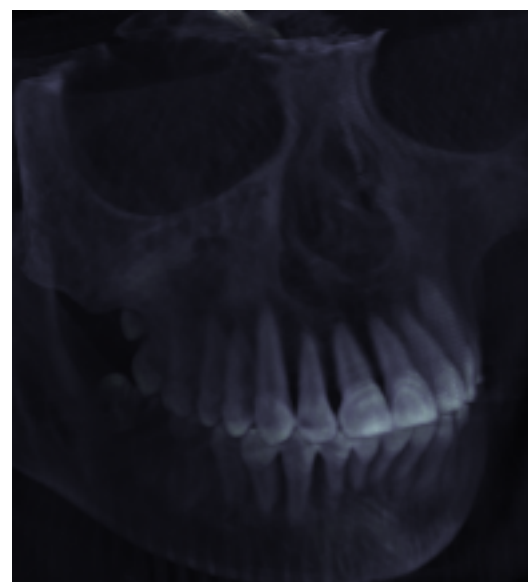
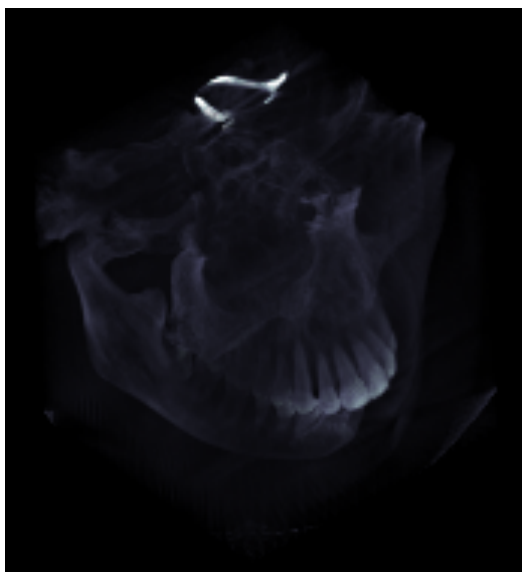
- Lighting changes for z axis orthogonal view neghip as light moves in x (top row), y (first column second row) and z (second column second row). Original view on the right.



Changing Camera Position

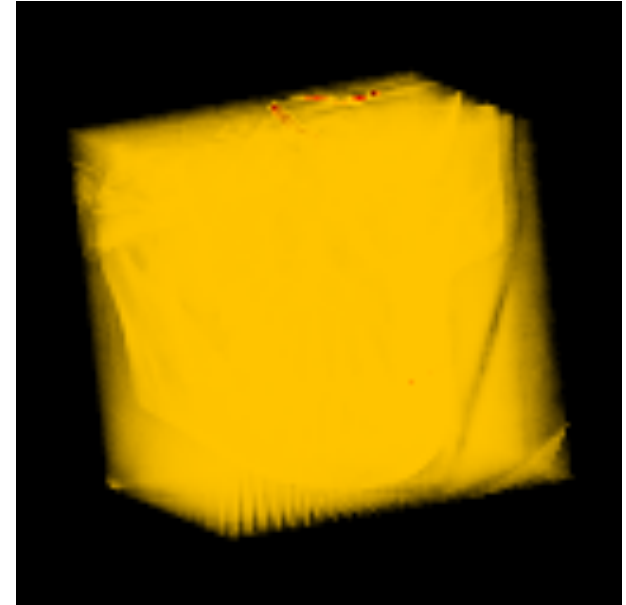
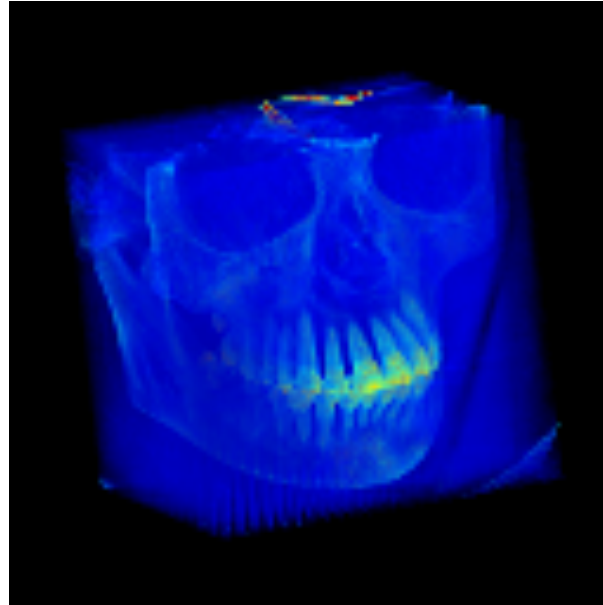
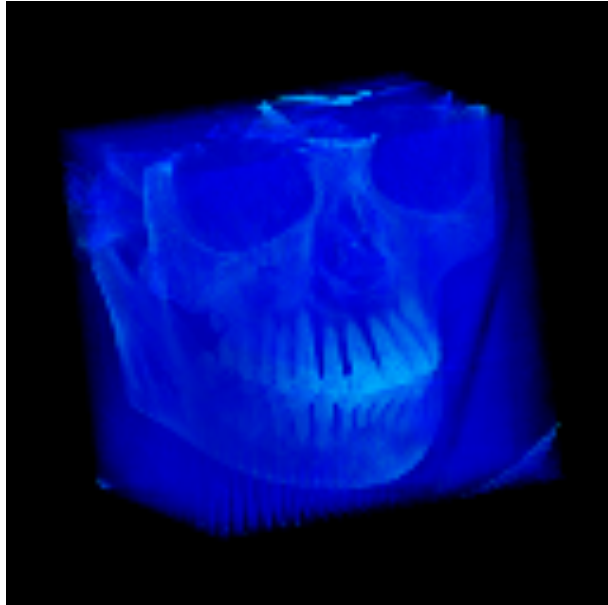


Thresholding Opacity



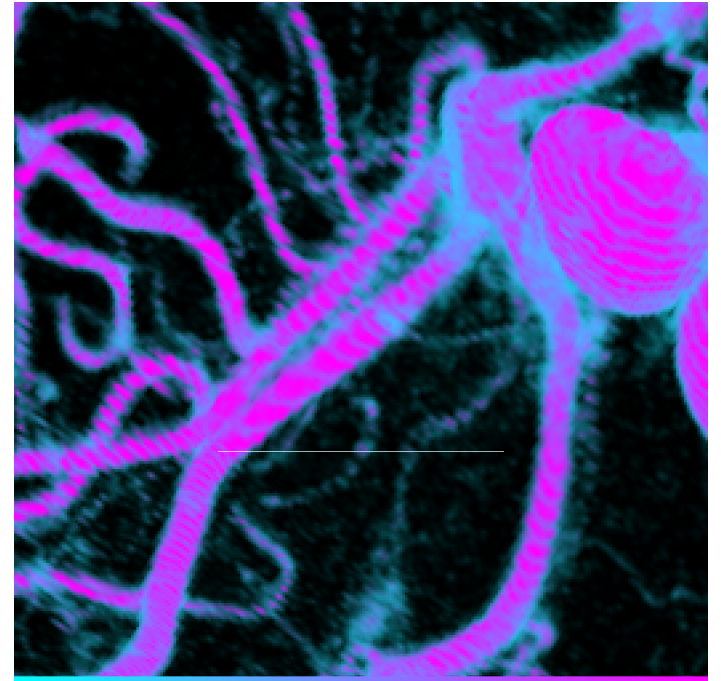
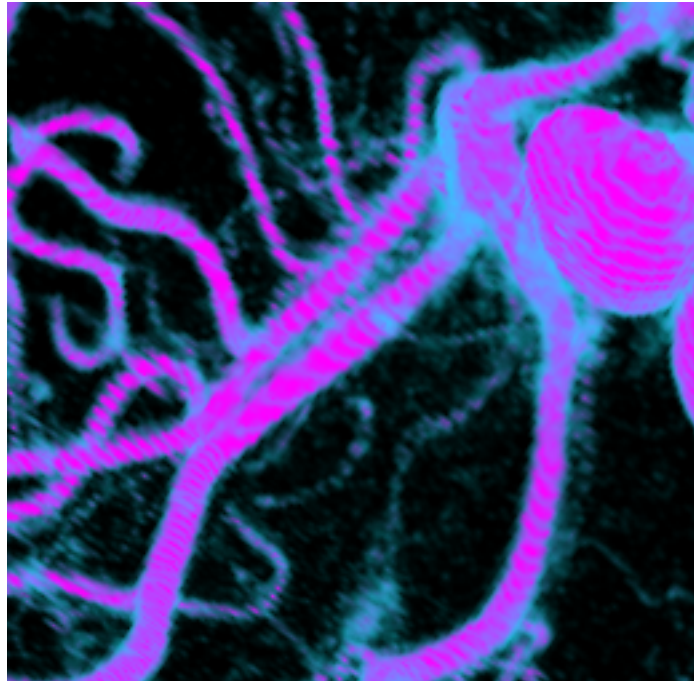
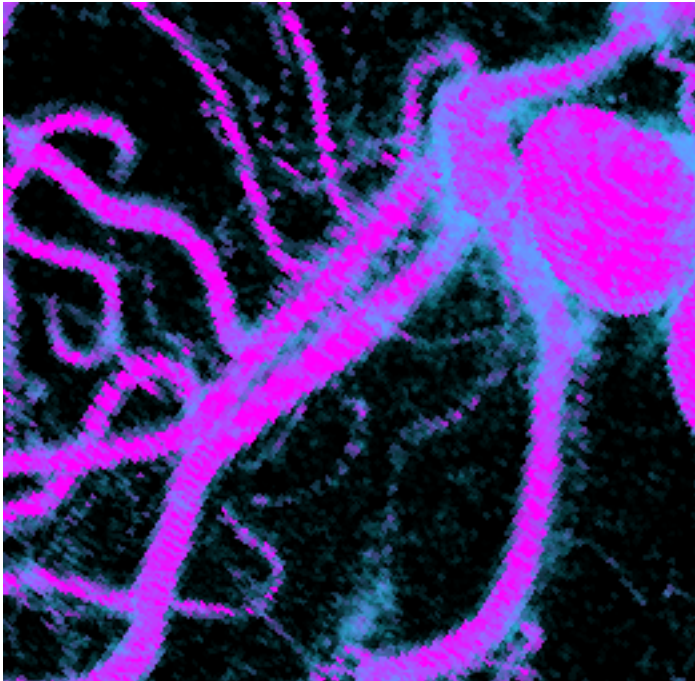
Thresholding Colormap

- Clamping values outside colormap limits. Left, 0-0.3. Middle 0 – 1. Right 0.7-1.



More.

- NN, Trilinear, TriCubic.



More

- Tricubic with Light. Thresholded difference map between Trilinear and tricubic.

