

Matthew Howa

Computer Graphics 2016

HW 3 – Rasterization

For this assignment I used the Bresenham Algorithm to rasterize lines and the algorithm from class to rasterize a circle.

**Resources:**

- Line & Circle Rasterization lecture 6
- [https://en.wikipedia.org/wiki/Bresenham%27s\\_line\\_algorithm](https://en.wikipedia.org/wiki/Bresenham%27s_line_algorithm)
- [https://www.cse.iitb.ac.in/~paragc/teaching/2011/cs475/papers/bresenham\\_line.pdf](https://www.cse.iitb.ac.in/~paragc/teaching/2011/cs475/papers/bresenham_line.pdf)

I wrote methods

- drawLine(...)
  - Draw angled lines
- drawVerticalLine(...)
  - Needed for drawing vertical lines
- drawCircle(...)
  - Draw Circles
- switchToOctantZeroFrom(...)
  - [from wiki]
- switchFromOctantZeroTo(..)
  - [from wiki]
- findOctant(...)
  - Derived from the Bresenham Algorithm paper

OUTPUT:

