

**Arjun Dass**

**CS-537 Interactive Computer Graphics**

**Mid-Term Project**

**Implementation:**

I have implemented the Mid-term project using the complete 2D pipeline in Java. The project implements all of the 2D-pipeline algorithm that we have used in the previous assignments. The project implements the Polygon Filling and Polygon Clipping algorithm. Apart from that, I have also implemented some normal standard transformations and non-standard viewport. The project also covers some complexities of using all the algorithm in a single project and also considering the user input to perform transformations and clipping.

**Challenges:**

It was easy to implement all the algorithms and separately but the biggest challenge was to bring them all together and also to perform transformations. To be very frank, I did a lot of hit and try methods to bring all the implementations together. Whereas for transformations, I used the Matrix class from the Jama packages which made transformations extremely easy. I had some difficulties while the mouse input and key inputs, but I turned to google for that and that solved my issues.

**Submission:**

My submission includes an src folder which contains all the necessary files. The folder also contains the .class files. In order to run the project, just import the src folder into eclipse or any other IDE and run. I have also attached a Jama.jar file which you have to add as an external jar file to your build path for the src project. The program won't run without that. I have also included a documentation.pdf and CS-537.pdf (Slide). Furthermore, there are also some images for outputs.