

Samantha DiMaio
Professor Rivas
Software Development Project Proposal
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Image Expression

For my software development project, I intend to look into creating an application project for image filtering. This is of most interest to me because I enjoy capturing an image and editing it. I will be able to filter an image using code written in Java. To go about completing this process, I intend to research some other projects like this one to see all the different filter options I could possibly go about creating. The filters I find of most interest include edge detection, sharpening, blurring, and crystallization of the image.

First, I have to figure out the best editor that would be useful in helping me create this project. I also have to understand how the image would be loaded into the program. I believe the Java Oracle website provides a simple code that I could use to load the image into the program. Secondly, I want to look into researching the different packages that are already built into Java so I can understand which classes or features would be of most use to me. The package `java.awt` contains all the classes for creating user interfaces and for painting graphics and images. I will import different features of this class to assist myself in writing the project code. I understand the package `java.math` will also come into play when developing these filters. I can use the built in mathematical formulas to assist myself in developing the code. Lastly, I will attempt to solve the problem by taking into account the dimensions of the image. The image's height and width are the first vital components needed to go about editing the image. In addition, images are fundamentally measured in pixels so that is also something I will take into account. Using the dimensions and pixels given, the filter would then be applied through the code I develop.



ORIGINAL

BLUR



EDGE DETECTION



SHARPEN

